

ANALYSIS OF SOUTH CAROLINA EXPERIENCE
IN CONVERTING FROM NABSP TO THE
HCFA COMMON PROCEDURE CODING SYSTEM
VOLUME I

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ANALYSIS OF SOUTH CAROLINA EXPERIENCE
IN CONVERTING FROM NABSP TO THE
HCFA COMMON PROCEDURE CODING SYSTEM
VOLUME I

prepared by

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This report is made pursuant to Contract No. 500-78-0013. The amount charged to the Department of Health and Human Services for the work resulting in this report (inclusive of the amounts so charged for any prior reports submitted under this contract) is \$838,363. The names of the persons, employed or retained by the contractor, with managerial or professional responsibility for such work, or for the content of the report are as follows: Jack Moshman and Leo Marcus. The amount charged for work relating only to both volumes of this report is \$101,334.

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PREFACE

This report is one of a series being produced for the Health Care Financing Administration under Contract Number 500-78-0013.

Reflecting the opinions of its authors, the report was made possible by the coordinated activities of many members of the Moshman Associates staff. Special acknowledgement is made to Jerry Ackerman, Rowena Augustin, James Colliver, John Freund, Lee Gregg, Miriam Jones, Larry Powell and Jane Shepherd.

The contributions of the HCFA Project Officer, J. Michael Knefley, were particularly important in providing much encouragement and many suggestions to sharpen the focus and increase the usefulness of the study. His role, also, in bringing together the comments of other HCFA staff on earlier drafts was most helpful.

Finally, we acknowledge with thanks, the cooperation of South Carolina Blue Cross Blue Shield, especially in the person of Linwood Davidson, who provided us with needed data and patiently resolved the inevitable problems and questions as they arose.

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EXECUTIVE SUMMARY

The processing of Medicare Part B claims is performed for the Health Care Financing Administration (HCFA) by regional insurance carriers which process claims under contract to HCFA. Each carrier uses its own version of medical procedural terminology to describe the activities and services of providers and the associated numerical codes which facilitate the use of computers to process claims.

Many of the existing terminology and coding systems have common origins, but have diverged from each other over the years as each carrier introduced modifications to accommodate new medical and processing procedures.

Considerable interest has been expressed to HCFA by various carriers, by individual providers and by the American Medical Association to convert from the existing medical procedural terminology and coding systems to a new system which better reflects today's medical technology.

South Carolina Blue Cross Blue Shield (SCBCBS) was permitted to convert from its version of the National Association of Blue Shield Plans (NABSP) system to the HCFA Common Procedure Coding System (HCPCS) with the conversion accompanied by an empirical examination of the effects of the changeover. This statistical study was designed to test the hypothesis:

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The conversion in South Carolina from the NABSP system to HCPCS is not accompanied by a change in the trend of total allowed payments as adjusted by the economic index.

Confirmation of the hypothesis would be strong evidence that a Medicare carrier can convert to the HCPCS without a consequent escalation in program costs and provides encouragement to HCFA to adopt such a system nationally.

Our examination of the SCBCBS data covering the 36-month period prior to the changeover, the 6-month changeover period and the 12 months after the change had been implemented does not reject the hypothesis. We conclude:

The changeover in South Carolina had no significant adverse effect on the total Medicare outlays. The total dollar amount allowed for payment per month after installation of the HCFA coding system was consistent with the trend of moderate increase exhibited by the total amount allowed per month prior to the changeover.

I. HISTORICAL BACKGROUND

In 1980 HCFA proposed testing a variant of CPT-4* to determine the variant's national applicability as a uniform coding system for reimbursement of claims under Part B of Medicare. (The variant has since become known as the HCFA Common Procedure Coding System (HCPCS)). South Carolina Blue Cross Blue Shield, the Medicare carrier in South Carolina, volunteered to undertake the changeover from its NABSP coding system to HCPCS and to assist in the analysis of the changeover experience. Study of an actual changeover was expected to supplement the predictions previously made by Moshman Associates for HCFA in five carrier regions[#] and to provide more specific experiential information on any increases in outlays associated with the changeover.

The structure of the NABSP medical procedure terminology and coding system used by the South Carolina carrier for reporting physician provided services remained fundamentally constant throughout the period, January 1977 to December 1979. Initially, the carrier processed both Medicare and Medicaid claims, but in April 1979 the State of South Carolina set up its own department for processing Medicaid claims. For

*Physicians Current Procedural Terminology, Fourth Edition (Chicago: American Medical Association) 1977.

[#]See prior reports "Simulation of the Effects of Changes in Medical Procedural Terminology Systems, Project HCFA 500-78-0013 - Simulation Methodology Using 1978 Medicare Data for: North Carolina, Pennsylvania, New Jersey, Georgia, and Maryland."

the purposes of the changeover study, therefore, only Medicare data was available from SCBCBS; these data served as the basis of this study. South Carolina Medicaid data are being analyzed in a parallel investigation; results will be published later.

The NABSP coding system used by SCBCBS retained its basic structure, but was dynamic throughout the 1977-1979 period. Additions to accommodate new procedures and services as well as policy changes were required. South Carolina is not unusual in this respect; the changes involved are typical of those we have observed in prior projects for HCFA. Virtually every coding system used has been modified by local carriers in every region of the nation.

One major revision to the coding system used by SCBCBS became effective in July 1978. At this time the Durable Medical Equipment section was restructured and the codes completely renumbered. Each 4-digit code for a service in this section was associated with a new service after July 1978. Except for the renumbering of the Durable Medical Equipment section, the structure of the SCBCBS coding system remained unchanged in its essential characteristics during the study period until the changeover was begun in 1980.

The changeover to HCPCS was accomplished in two stages. During the first period, January 1980 to July 1980, providers were permitted to submit claims to the local carrier, precoded with either the NABSP codes or

codes from the HCPCS. During this six-month learning or changeover period, the carrier did all their processing using NABSP codes. Claims received with HCPCS codes were recoded with NABSP codes.

The carrier then performed its reasonable charge profile update using the NABSP coded history. Once the Regional Office of HCFA approved this updating methodology, the carrier converted its history and the new reasonable charge profiles to HCPCS coding. This conversion was made by carrier staff using guidelines specified by HCFA. Once the conversion was complete, it was reviewed and approved by both HCFA Central Office and Regional Office personnel before it was used in the SCBCBS claims processing system. By updating the profiles before converting, the carrier insured that payment rates were based upon actual history rather than converted histories.

In July 1980, beginning the second period, the carrier completely adopted HCPCS. All claims precoded by providers with HCPCS were accepted and processed. All other claims, both those with NABSP codes and those containing narrative descriptors, were coded in HCPCS by carrier personnel for processing.

Prior to the conversion to the HCPCS in July 1980, services on claims were coded using NABSP codes. Typically, the procedure, type of service and place of service were coded in the form WWW-XXXX-Y-Z where WWW represents the basic 4-character NABSP procedure code, XXXX may be two 2-character modifiers indicating some special condition such as an

evening house call, Y is a one-character Type of Service code whose admissible possibilities are listed on page A-43 and Z is a one-character Place of Service code whose function is self-evident. Services coded with HCPCS codes assume the form WWWWW-XXXX-Y-Z where the basic procedure code is now 5 characters permitting more precise description and classification of procedures and services. The structure of Type of Service codes (Y) and Place of Service codes (Z) and modifiers (XXXX) remained the same. In this study, no differentiation among claims on the basis of the XXXX modifiers was made.

II. METHODOLOGY

A. Organization of the Data

The objective of this analysis, i.e., the determination of the existence of an effect on total outlays after conversion in South Carolina from the NABSP coding system to HCPCS, requires only the total claims data without any finer breakdown by procedure code. A micro analysis, based on procedure codes, provides a means of identifying a possible source to explain any identified overall effect, can detect possible compensatory effects at the procedural level and provides a mechanism to restrain adverse effects at that level.

Our micro analysis of the South Carolina data is based on some of our previous efforts in which we classified procedures and services into related groups called "sets". Each set consisted of those codes representing related medical services or procedures. An iterative procedure of defining sets was necessary in South Carolina to achieve stability of variation in frequency and charge data. Within each set, patterns of frequency of services and average charges may be identified during the pre- and post-changeover periods. It is these patterns which become significant to the analysis.

Our initial step in measuring the impact of the changeover on Medicare outlays consisted of following the methodology of the preceding paragraph and dividing all procedures and services into four classes

which were then subdivided into the sets as shown in Appendix A. The major classes were:

I. Major Physician Services	90 sets
II. Assistance at Surgery Services	16 sets
III. Anesthesia Services	17 sets
IV. Durable Medical Equipment and Other Services	<u>16</u> sets 139 sets

Major Physician Services were ordered and grouped following the code sequence of CPT-4. This division of services was initially subdivided into 105 sets, but was later refined by combining all professional components of diagnostic radiology, diagnostic ultrasound, radiation therapy, nuclear medicine and laboratory and pathology into a single set.

For Assistance at Surgery Services and for Anesthesia Services it was necessary to use a broader subdivision of services into sets than for Major Physician Services because of lower frequencies and the desire to attain statistical stability. In these classes of services, each set contained the terminology and codes of one or more of the complete sets in the Major Physician Services category.

After these initial subdivisions were established, consideration was given to the finer details of the South Carolina carrier coding system. As is the case with most carrier systems we have studied, the full identification of a procedure or service in the South Carolina system includes supplemental coding and terminology in the form of Type of Service (TOS)

codes. (These codes are appended to Appendix A on page A-43.) In a few instances in South Carolina, Place of Service (POS) and Type of Providers (TOP) codes were also used to differentiate one service from another. See Sets I-89, Major Physician Services: Special Services-Other Services and IV-11, Hospital-Based Physicians (non-professional component) in Appendix A for examples of the application of POS and TOP codes respectively.

Appendix A also provides the appropriate NABSP and HCPCS codes, with the applicable TOS codes, that were allocated to each of the sets of procedures and services defined for the study of the South Carolina data. The allocation of codes was consistent with the coding system in use during the period of the study. Our allocation was discussed with SCBCBS staff prior to the processing of the data.

When the process of allocation was completed, the sets encompassed the entire SCBCBS system structure and each SCBCBS system code including the TOS and POS characters was assigned to one and only one set.

South Carolina Data

The carrier paid claim file was received from SCBCBS in the following segments:

January 1977 through December 1978
January 1979 through February 1981
March 1981
April 1981
May 1981
June 1981.

Each paid claim was in the form of a listing of types of procedures or services provided as "line items," coded in the coding system in use at the time. The claim also indicated the number of services for each line item. For example, a claim that included 3 similar office visits and one injection contained two line items with number of services 3 and 1 respectively.

Data for each of these time periods were submitted to us in a fixed 71-character (byte) record format. Record positions assigned by SCBCBS were as follows:

<u>Field No.</u>	<u>Description</u>	<u>No. of Bytes</u>	<u>Position</u>	<u>Comments</u>
1	Provider Number	10	1-10	
2	Filler	2	11-12	
3	Bene-Number (HIC)	12	13-24	
4	Claim-Number	9	25-33	
5	NABSP-Procedure-Code	4	34-37	Spaces after July 1980
6	CPT-4 Procedure Code	5	38-42	Spaces for 1977 thru 1979
7	Modifiers	4	43-46	Same for CPT-4 and NABSP
8	Type-of-Service	1	47-47	Same as (7)
9	Place-of-Service	1	48-48	Same as (7)
10	Number-of-Services	3	49-51	
11	Charge-Submitted	6	52-57	
12	Charge-Allowed	6	58-63	
13	Assignment-Indicator*	1	64-64	
14	Adjustment-Indicator*	1	65-65	
15	Payment-Date [#]	6	66-71	YYMMDD Format

*The indicators reflect whether the provider accepted assignment and whether any adjustment was made by the carrier.

[#]Payment-date was judged to be more significant for purposes of analysis for two reasons: (1) The coding system used was based on the date the carrier processed the claim rather than date of service, (2) additionally, payments and workload statistics are primarily based on date of payment rather than date of service.

For purposes of this study, providers were classified as either:

1. Matched providers, defined as those who submitted claims both before and after the changeover to HCPCS; or
2. Other providers.

A provider was included among the matched providers if the data contained at least one claim with matching provider number in each of the two periods:

January 1979 through June 1979
July 1980 through December 1980.

Claims were classified as assigned* or unassigned for payment purposes. As shown in Figure 1,[#] over 50% of the service claims during the study period were assigned and over 85% of the services were rendered by matched providers.

Distinctions between matched and unmatched providers and between assigned and unassigned claims were made because of an a priori concern that members of each group could differ from their complement with respect to frequency and/or charge patterns in any set. The relatively small number of providers not in the matched group emphasized the dominating importance of concentrating the analysis on the matched providers. In Chapter III of this report, the equivalence of the assigned and unassigned data is discussed.

*An assigned claim is one in which the provider agrees to accept payment directly from the carrier and to accept the Medicare approved allowed amount as payment in full.

[#]For each figure in the text, tables of the plotted numerical values having a table number the same as the corresponding figure are provided in Appendix C.

Frequency
of Service
Thousands

Frequency of Services, January 1977 - June 1980, Assigned and Unassigned Claims, Matched and Nonmatched Providers.

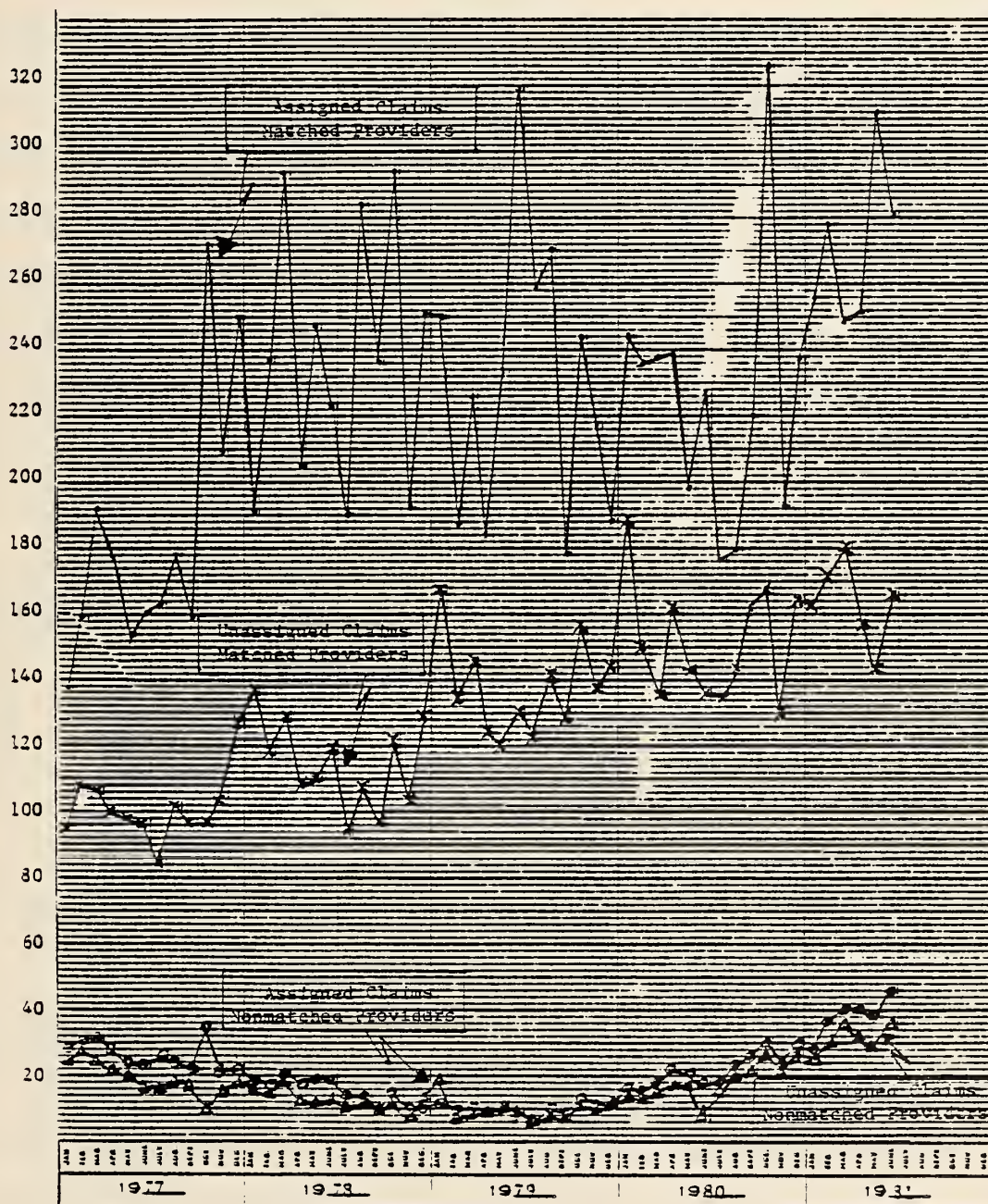


Figure 1

B. Completeness of the Data

One concern in this study was assuring completeness of the data received from the carrier. Accordingly, a computer program was written to separate and count the claims in the sorted 1977-78 data in each of the eight calendar quarters. These counts were compared with the number of claims reported by SCBCBS in reports previously submitted to HCFA. Additionally, four quarters were selected to test for any seasonal trends in the observed deviations. As is shown below, the deviations were of a minor nature; in general there was close agreement between the number of reported claims and the number of claims on the tapes submitted for the analysis.

<u>Quarter/Year</u>	<u>Number from S.C. Report</u>	<u>Number from Computer Count</u>	<u>Percent Deviation</u>
1/77	216,959	221,474	+2.08
2/78	233,996	225,742	-3.53
3/77	265,195	260,982	-2.33
4/78	247,138	262,465	+6.20
Total:	965,228	970,663	+0.005

This agreement was considered satisfactory.

C. Statistical Procedures

The essence of statistical inference is to specify a hypothesis and an alternate hypothesis. A test of the hypothesis consists of determining the probability that the observed data are consistent with the hypothesis. If the probability is "low" that the data are consistent with

the hypothesis, then the hypothesis is rejected and the alternate hypothesis accepted. What level of probability is "low" is not a statistical problem; the choice should be based on the tolerable error in rejecting the hypothesis when it is, in fact, valid.

Thus, if one sets the criterion at .05, i.e., if the probability is .05 or less that the observed data could have arisen by chance if the hypothesis is true, there is at most one chance in 20 of incorrectly rejecting the hypothesis and accepting the alternate hypothesis. A level of .05 is a conventional choice and was adopted in our analysis.

The detection of a difference between measures is analogous to the detection of a signal against a background of masking noise which is equivalent to the uncontrolled variability in the data. The greater the amount of noise, the louder the signal must be for reliable detection. When random variability is small, then differences of relatively small magnitudes are sufficient to reject a hypothesis that no difference exists and conclude that there is a statistically significant difference.

The probability one calculates is dependent on the form of the alternate hypothesis. For our investigation we tested

Hypothesis: The conversion in South Carolina from the NABSP system to HCPCS was not accompanied by a change in the level or trend of total allowed payments adjusted for the economic index and seasonal variations.

and the

Alternate Hypothesis: The conversion in South Carolina from the NABSP system to HCPCS was accompanied by a change in the level or trend of total allowed payments adjusted for the economic index and seasonal variations.

We deliberately chose to state the alternate hypothesis in the form quoted above. It is possible to consider that the only meaningful alternative to no change is an increase. If HCFA and the carrier were not able to control the circumstances relating to the introduction of the conversion without an increase resulting, HCFA would be concerned that permitting further conversions would raise the level of Medicare payments to an unacceptable level. If no increase should be found, then HCFA could consider that conversions could be instituted and controlled without expecting a concomitant escalation in costs.

By considering a two-sided alternative, that costs may be reduced as well as increased, we do not prejudge the results of this study and we recognize that if we should demonstrate that costs are reduced, there is a further incentive for HCFA to encourage conversions to HCPCS.

The pre-changeover period of 36 months provides a base by which a change in trend can be measured. Since the post-changeover period covered a July to June interval we selected the largest July to June interval in the pre-changeover period as the base in order to balance any seasonal effects. The base period was selected as July 1977 to June 1979.

Our test of the hypothesis consists of comparing the annual growth rate in the total allowed charges during the 24 months prior to the changeover as described above with the 12 months after the changeover period using the model,

$$y_i = A 10^{b(t_i - t)}.$$

The annual growth rate is the quantity 10^{12b} where b is estimated from the assumed model, y is the adjusted value of allowed claims in month t_i , t_i designates the month by numbering each month consecutively after some arbitrary origin such as December 1976, t is the average month number computed from the n months of data and A is a scale factor. The parameter b and its variance are estimated by a standard least squares procedure applied to the logarithmic form of the model,* i.e.,

$$\log y_i = \log A + b(t_i - t),$$

which provides estimates of $\log A$, b , and s_e , the standard error of estimate. Variance estimates are also provided for $\log A$ and b .

s_b , the square root of the variance of b , is known as the standard error of b . Because of monthly variations in frequencies, the mix between assigned and unassigned claims, the mix among procedures and services, and even the promptness with which the carrier receives, processes

*Harold Freeman, Introduction to Statistical Inference (Reading, Mass.: 1963), p. 343.



and pays each claim, the monthly total of allowed charges fluctuates from month to month so that b must be estimated in the presence of considerable variation in y . The greater the variation of y , the less the precision in the estimate of b , which is reflected in a larger value of s_b than when the precision is high.

If one were to conceptually consider that the period of time analyzed is a sample from many comparable time periods with the same underlying growth rate and level of variation in y , and estimate the growth rate in each such time period, then one would expect about two-thirds of the calculated growth rates to be in the interval $10^{12(b \pm s_b)}$ and about 95percent of the growth rates to be in the interval $10^{12(b \pm 2s_b)}$. These intervals are also known as the 67 and 95 percent confidence intervals for b .

A 95 percent confidence interval for the level of the adjusted allowed amount in some month t_k is

$$\text{anti log} \left[\log A + b (t_k - \bar{t}) \pm t_{n-2, \alpha} s_e \sqrt{1 + \frac{1}{n} + \frac{(t_k - \bar{t})^2}{n \sum_{i=1}^n (t_i - \bar{t})^2}} \right]$$

where t_{n-2} , is the critical value of Student's distribution with $(n - 2)$ degrees of freedom at probability level α .

The hypothesis that the conversion is not accompanied by a change in level or trend of adjusted total allowed payments may be tested by determining whether or not the y values for the post-changeover months are included in the confidence interval whose formula is provided above based on the 36-month pre-changeover period, January 1977 to December 1979.

An additional analysis that is valuable in the test of the hypothesis is to compare the annual growth rate of payments in the post-changeover period with the growth rate of payments established prior to the changeover.

If there exist two independent series of n and m months respectively, which yield respective values of b , say b_n and b_m , with respective standard errors s_{b_n} and s_{b_m} , then the hypothesis that the n -month and m -month growth rates are the same is equivalent to testing the hypothesis that

$$b_n = b_m,$$

(b_n and b_m represent monotonic functions of the growth rates for n and m month periods) against the alternate hypothesis that the growth rates for the two periods differ, i.e., $b_n \neq b_m$.

The hypothesis is tested by calculating

$$t = \frac{|b_m - b_n|}{\sqrt{s_{b_m}^2 + s_{b_n}^2}}$$

and comparing t with $t_{m+n-4, \alpha}$, the critical value of Student's distribution with $(m + n - 4)$ degrees of freedom at probability level α . The critical value is the value which, under the hypothesis, is exceeded by t with probability no greater than α . Critical values of t are extensively tabulated for many combinations of $(m + n - 4)$ and α .

In the South Carolina study, the actual values of allowed claims for any month were adjusted by dividing by (1) the economic index and (2) a seasonal index reflecting the month of the year.

Values of the economic index were constant over a 12-month period; the following table obtained from HCFA displays the economic index for the period of interest.

<u>Period</u>	<u>Economic Index</u>
January 1977 - June 1977	1.1880
July 1977 - June 1978	1.2725
July 1978 - June 1979	1.3424
July 1979 - June 1980	1.4267
July 1980 - June 1981	1.5289

The seasonal index was obtained by taking the period January 1977 to December 1979 and July 1980 to June 1981 and averaging all 4 Januaries, Februaries, ..., Decembers. This period omits the 6-month changeover period January - June 1980 as being possibly unrepresentative and retains a balance of complete 12-month periods. The average for each of the 12 months is divided by the average for the entire 48 months with the following resulting seasonal indices.

<u>Month</u>	<u>Seasonal Index</u>
January	0.93108
February	0.97296
March	1.09361
April	1.00583
May	0.96689
June	1.03983
July	0.89961
August	1.01911
September	0.97405
October	1.13757
November	0.94171
December	1.01774

The seasonal index shows, for example, that July typically contains 89.96 percent of an "average" month's total allowed charges, whereas October typically includes 113.76 percent of an "average" month.

These two adjustments remove the effects of the inflationary price levels and of the typical variations among the months of the year.

D. Set Analysis

The general statistical analysis was supplemented by a micro analysis of set data to detect aberrations or unusual occurrences in monthly frequencies and average allowed charges in each set.

For purposes of this report, this micro-analysis was accomplished by plotting the data and examining the plots of each set visually to determine which of several patterns is represented. The purpose of the micro-analysis was to examine how the conversion affected payments and frequency of service for various medical groupings.

For three important aggregations such as Set I-7, Respiratory System; Set I-53, Office Visits; and All Sets Combined, a graphical comparison between assigned and unassigned claims revealed essentially similar characteristics justifying the use of total claims as the variable of interest in analytical investigations.

III. FINDINGS AND CONCLUSIONS

Analysis of the South Carolina data proceeded by computing the frequencies of services and total amounts allowed for each month of the study period and by computing the frequencies of services and average submitted charges for each month for the procedures and services within each set.

Figure 2 displays patterns exhibited during the study period. From top to bottom, the curves represent:

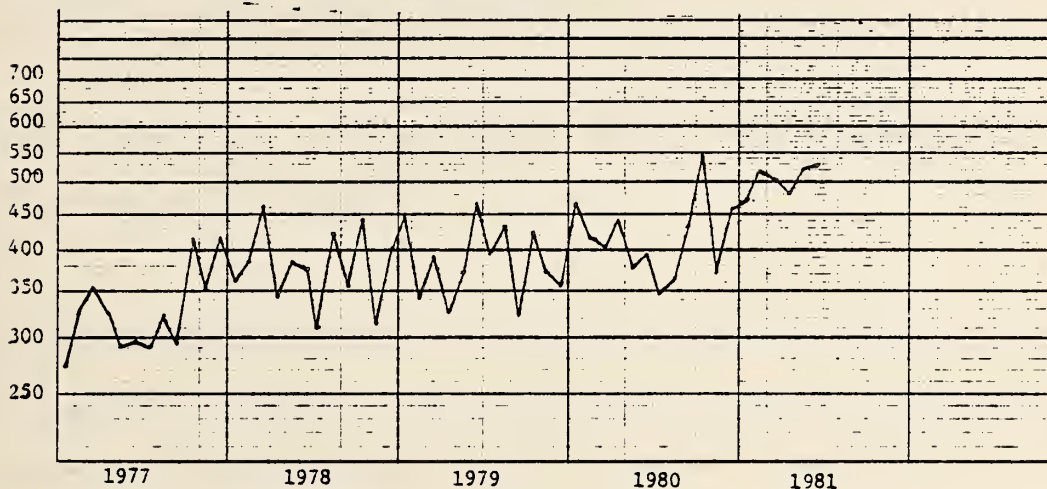
1. The frequency of all services for each month;
2. The actual dollars allowed for each month;
3. The dollars allowed for each month after being adjusted for the economic and seasonal effects;
4. The economic index.

The data are plotted on semi-logarithmic graph paper because data having a constant rate of change are represented by a straight line on such graph paper.

The major concern of HCFA is the effect of the HCPCS conversion in South Carolina on total amount of money paid in Medicare benefits. Since average payment per service is affected by the number of services and--more importantly--the distribution of services among the various sets, total allowed charges were used for the overall comparison.

Frequency
of Service
Thousands

Totals for All Sets - Frequency of Service, Allowed Charge,
Total Allowed Charge Adjusted for Seasonal Effect and
Economic Effect, and Economic Index.



Millions
of Dollars

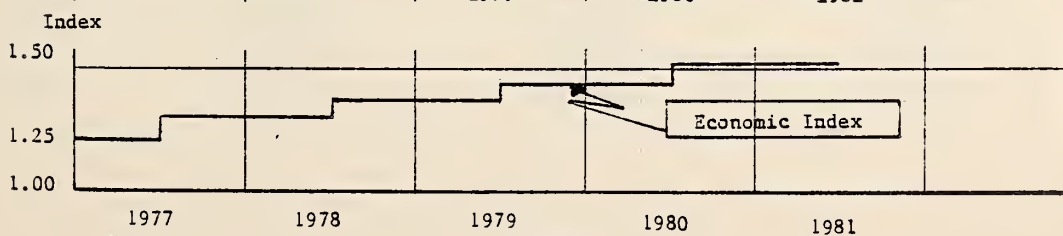
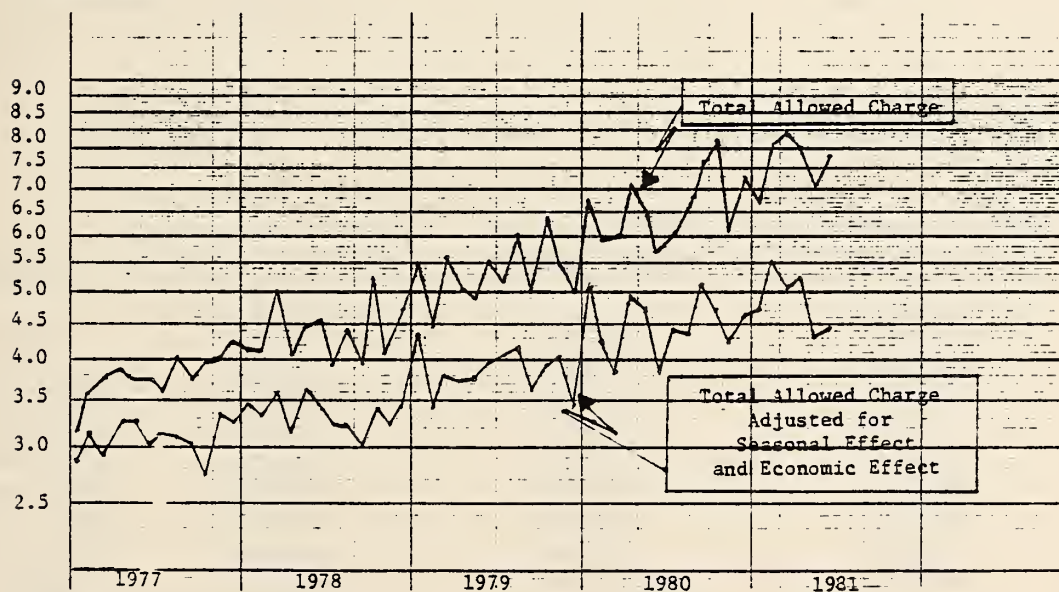


Figure 2

Fractionating one procedure into two or more newly defined procedures results in a reduced average charge per procedure without affecting total allowed charges. Average charge allowed per procedure enabled us to examine individual sets at the micro level.

Several observations and conclusions follow from consideration of Figure 2 and the underlying data:

1. The post-changeover adjusted total allowed charges fall within the 95 percent confidence intervals computed from the 36-month pre-changeover period January 1977 to December 1979. The following table provides the total adjusted allowed charges for the 12-month post-changeover period July 1980 to June 1981 with the 95 percent confidence interval previously computed.

<u>Month</u>	<u>Confidence Interval Lower Level</u>	<u>Adjusted Total Allowed Charge</u>	<u>Confidence Interval Upper Level</u>
July 1980	3275700	4430961	5313200
August 1980	3298200	4367536	5364000
September 1980	3320500	5114576	5415100
October 1980	3343100	4722122	5467000
November 1980	3365500	4268466	5519600
December 1980	3388000	4678297	5573100
January 1981	3410500	4722327	5627300
February 1981	3432900	5501915	5682200
March 1981	3455400	5076261	5738000
April 1981	3477800	5246047	5794000
May 1981	3500400	4804529	5851700
June 1981	3523000	4964291	5909800

2. The post-changeover frequencies of services fall within the 95 percent confidence interval computed from the 36-month pre-changeover period January 1977 to December 1979. The following table provides the frequencies for the 12-month post-changeover period July 1980 to June 1981 with the 95 percent confidence interval previously computed.

<u>Month</u>	<u>Confidence Interval Lower Level</u>	<u>Frequency of Service</u>	<u>Confidence Interval Upper Level</u>
July 1980	312660	349947	579410
August 1980	314140	365955	584130
September 1980	315630	432090	588920
October 1980	317100	544706	593770
November 1980	318550	371230	598710
December 1980	320010	458011	603730
January 1981	321440	474849	608810
February 1981	322860	518421	613960
March 1981	324290	504498	619200
April 1981	325690	481931	624510
May 1981	327090	522328	629900
June 1981	328430	528938	635270

3. The adjusted annual growth rate of total allowed charges experienced after the changeover was not significantly different from the prechangeover annual growth.

The 95 percent confidence interval for the annual rate of increase for total charges allowed adjusted for the economic index and seasonal variation as described in Chapter II, Methodology, during the July 1977 to June 1979 pre-changeover period was (6.2, 18.2) percent. During the 12-month post-changeover period from July 1980 to June 1981 the annual rate of increase was 15.4 percent, well within the pre-changeover confidence interval.

Following the techniques described in Chapter II, Methodology, we use the model parameter b from which the annual rate of increase was calculated. We set $b_{24} = .00410$ and $b_{12} = .00519$. Their respective standard errors are $s_b = .00097$ and $s_b = .00243$. We calculate

$$t = \frac{|b_{12} - b_{24}|}{\sqrt{s_{b_{12}}^2 + s_{b_{24}}^2}}$$

$$t = \frac{.00519 - .00410}{\sqrt{(.00243)^2 + (.00097)^2}}$$

$$t = \frac{.00109}{\sqrt{.0000068458}} = \frac{.00109}{.002616}$$

$$t = .417.$$

With $24 + 12 - 4 = 32$ degrees of freedom, the 95 percent critical value of t is 2.037 which may be compared to the calculated value of t of .417. Therefore, it may be inferred that the growth rates for the two periods were not significantly different and the hypothesis that both rates of increase are equal is not rejected. In fact, a value of t equal to or larger than .417 may be expected by pure chance more frequently than 50 percent of the time if the hypothesis is valid.

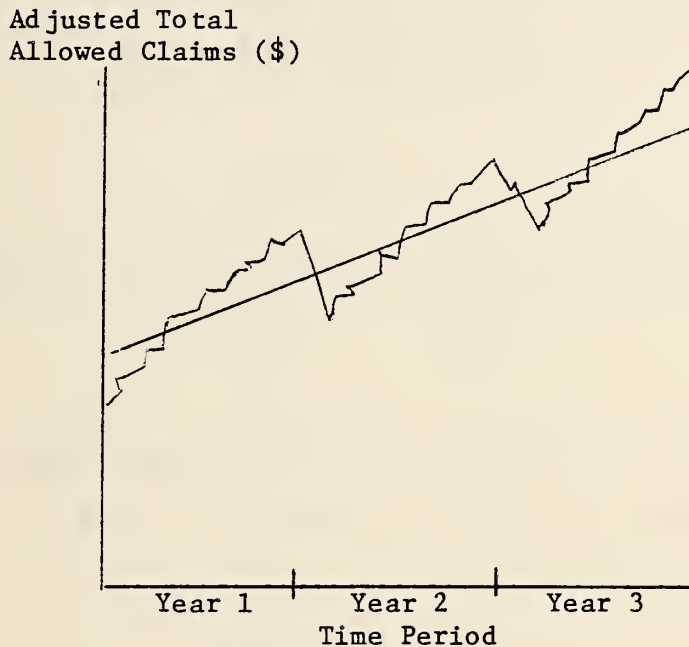
4. The July 1980-June 1981 post-changeover annual growth rate was consistent with the three preceding annual growth rates.

This finding is derived from another approach that reinforces the classical statistical approach. The data are divided into 12-month segments and the growth rates in each segment are compared. To retain comparability among segments, each 12-month segment was taken to be the period from July through the following June because the 12-month post-changeover period was July 1980 - June 1981. The economic index was constant over these specific 12-month segments. The results of this analysis are tabulated below with and without a seasonal adjustment.

<u>Time Period</u>	<u>Annual Percentage Growth Rate</u>	
	<u>(Unadjusted)</u>	<u>(Adjusted)</u>
July 1977 - June 1978	24.4	18.5
July 1978 - June 1979	35.4	29.0
July 1979 - June 1980	20.6	14.9
July 1980 - June 1981	21.2	15.4

Even though the third time segment included the 6-month changeover period, it also appears to be consistent with the other periods. During the beginning of the second time period, July 1978-June 1979, there was a radical change in the coding of Durable Medical Equipment. Additionally, the carrier converted from three areas to a statewide area prevailing on February 5, 1978. Therefore, the first period contains pricing using physicians profiles and an area prevailing file for three areas for 7 months, and a 5 month period in which a single statewide area prevailing file was introduced. Represented in the second time period are the effects--whose magnitudes we could not measure--of the first full year's operation using a statewide area prevailing file in addition to the effects of restructuring the DME coding system.

The annual data exhibit a sawtooth pattern which, despite the seasonal adjustment, shows higher rates for growth within each 12-month July-June period than comparable growth rates over several years. The data, exaggerated to illustrate the point, take the form



with the straight line reflecting the 36-month trend which obviously climbs at a lower rate than the trend in any one year.

The four annual adjusted growth rates on page 20 may be compared to a 14.4 percent growth rate for the entire 48 months from July 1977 to June 1981.

5. The standard errors of the trend for a one-year period are about 8 times those for a four-year period as may be expected by analysis.

In simplified form, the standard error of b can be written as

$$s_b = \frac{s_e}{\sqrt{\sum X_i^2}}$$

where s_e is the standard error of estimate and X_i is the difference between month i and the average month. Now, for $2n + 1$ months,

$$\begin{aligned}\sum X_i^2 &= \frac{2n(n+1)(2n+1)}{6} \\ &\approx \frac{2n^3}{3}\end{aligned}$$

If the number of months is quadrupled from, say, 12 to 48

$$\sum X_i^2 = \frac{2(4n)^3}{3} = \frac{2n^3}{3} 64$$

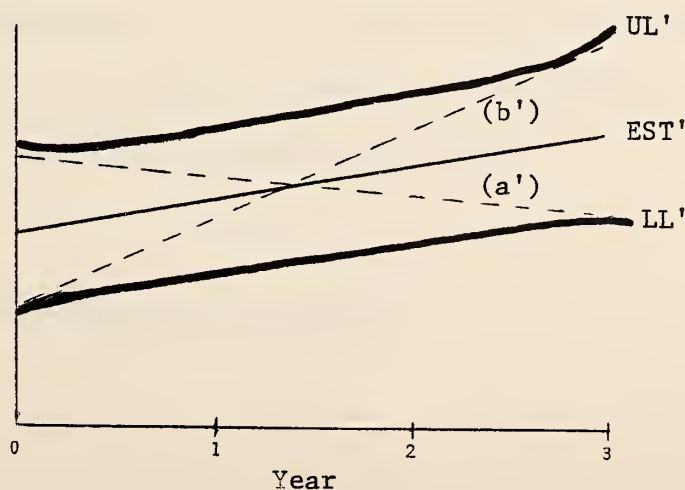
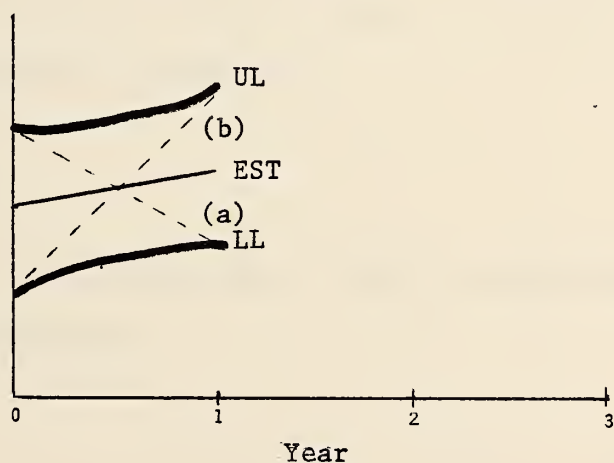
Taking the square root of the ratio, we obtain the factor of 8. This is consistent with our data as seen below using the original b and s_b units.

Time Period	b	$\frac{s_b}{b}$
July 1977 - June 1978	.00614	.370
July 1978 - June 1979	.00931	.296
July 1979 - June 1980	.00503	.843
July 1980 - June 1981	.00519	.468
July 1977 - June 1981	.00487	.076

The relatively high standard errors for a one-year period, particularly the post-changeover period, are a reflection of a lack of precision in the post-changeover growth rate. Unlike the standard error of a mean which shows a diminishing return for larger samples, the opposite is true for the standard error of the trend. A sample k times as large as the original

sample reduces the standard error of the mean by a factor of $k^{0.5}$. A sample k times as large reduces the standard error of the trend by a factor of $k^{1.5}$. Even one year's additional data would reduce the standard error of the post-changeover trend by a factor of $2^{1.5} = 2.8$ or almost 3. Two years' additional data would reduce the standard error by a factor of more than 5. Thus, a relatively short period of additional data collection would provide considerably more precision in the post-changeover annual growth rate.

The effect of added data on the standard error of the growth rate can be seen by comparing the upper and lower graphs below.



The upper figure based on a one years' data shows estimated outlays (EST) with upper and lower confidence limits (UL and LL) respectively. The growth rate is reflected in the slope of the line EST. Dotted lines (a) and (b) reflect the extremes of the way the estimate can vary and remain within the confidence limits. The lower figure assumes three years similar data with a superscript prime (') differentiating the three year data from the one year data. EST and EST' have the same slope; UL and LL are similar to UL' and LL' respectively. The big difference is in the manner in which (a') and (b') have slopes much closer to that of EST' than do (a) and (b) compared to the slope of EST. This illustrates, geometrically, the smaller standard error, or variation, in the growth rate if the data period is extended.

6. No statistically significant change in frequencies of services accompanied the changeover.

The frequencies of services prior to January 1, 1980 increased at a rate of 8.0 percent annually. For the entire 54-month period through June 30, 1981, the annual rate of increase was 9.2 percent, showing no significant change. The growth of South Carolina Medicare beneficiaries from 1976 to 1980 was about 4.3 percent per year.*

*Personal communication from HCFA staff.

The t-test is not applicable to compare the period prior to January 1980 with the total 54-month period because these two periods overlapped and were not independent. The frequencies for the 12-month changeover period is not directly comparable with prior periods because of three changes in practice which magnified the growth rate during that period:

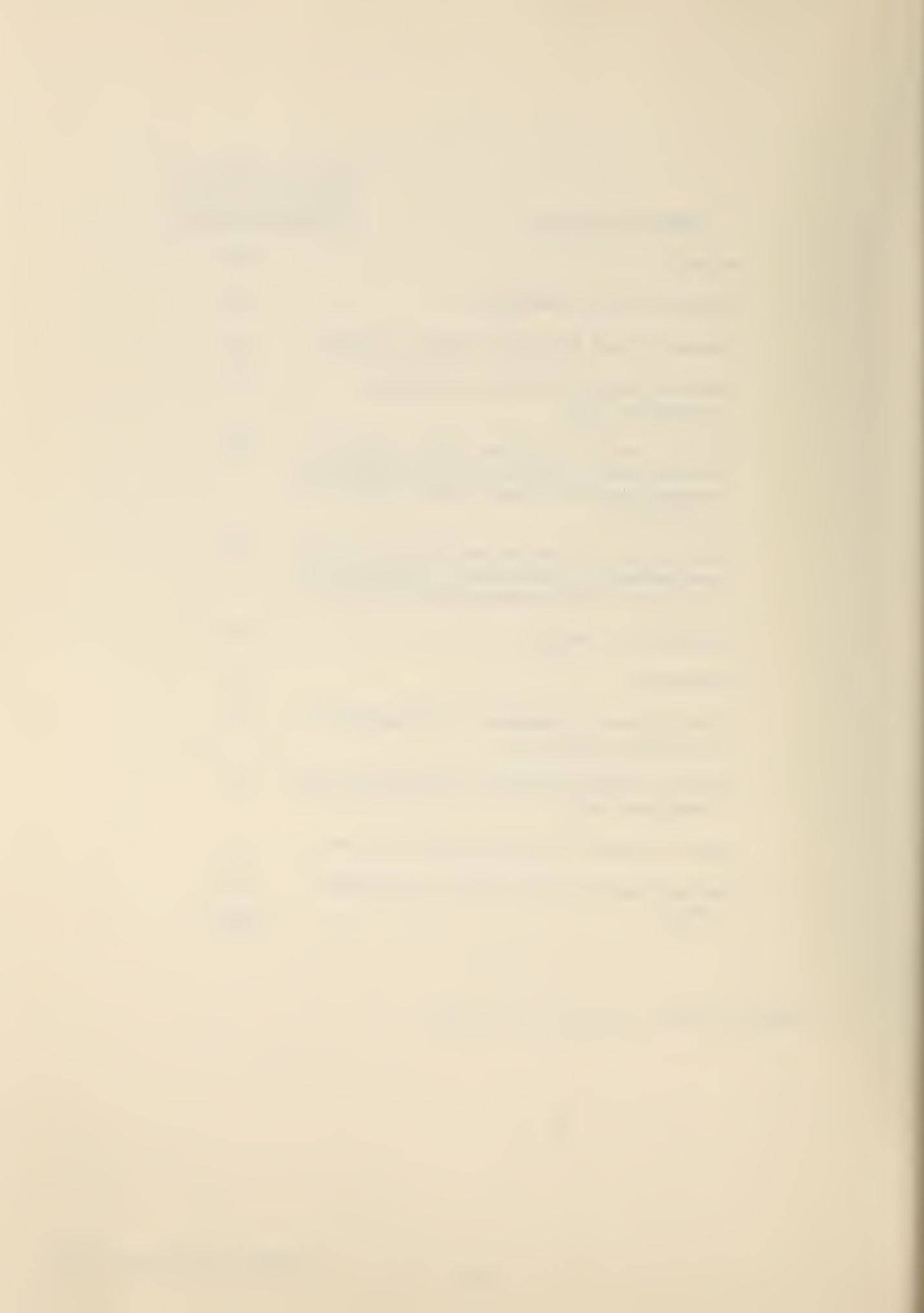
- Some services at mental hospitals, not previously billed to Medicare, were accepted at that time,
- Psychiatric services were billed at a daily rate after the changeover rather than for an extended period (such as by the week or month) which was the prior practice. This increased the number of such psychiatric services by a factor between 7 and 30 without affecting total allowed charges.
- The HCPCS system permits the usage of more codes than the carrier's previous coding system.

7. As a by-product of our analysis, we obtained a frequency distribution of total charges by major class of services.

The following tabulation provides the percentage of total allowed charges associated with each of the indicated classes of services during a representative month (April) in 1981.

<u>Class of Service</u>	<u>Relative Importance (Percent of total allowed charges)</u>
Surgery	31%
Radiology (total service)	1%
Laboratory and Pathology (total service)	3%
Radiology and Pathology (professional component only)	11%
Visits, including office, home, hospital, nursing home, consultations, injections, preventive health care, psychiatry, and chiropractor	25%
Other Medical Services, including dialysis, ophthalmology, audiology, cardiovascular and other specialized medical services	6%
Assistance at Surgery	1%
Anesthesia	4%
Durable Medical Equipment and Prosthetics, and medical supplies	5%
Hospital Based Physicians (non-professional component only)	4%
Other Services, including ambulance, etc.	2%
Non-permissible codes, including adjust- ments	8%
	<u>101%*</u>

*Does not sum to 100% due to rounding.



8. In addition to the macroanalysis of the total outlays, we conducted a microanalysis, directing our attention to the patterns of frequency and average charge displayed by data within each set during the study period. Our study of the changeover of medical procedural terminology and coding systems in South Carolina enabled us to identify typical classes of graphs representative of specific behavior patterns which have varying implications.

Our purposes in examining the set graphs was to detect any indication of an increase in outlays, frequency, or average charges associated with the changeover to the HCPCS that may have introduced anomalies in the total outlays or frequencies.

We identified five classes of graphs, which are given below with the relative importance associated with each expressed as a percentage of the dollars allowed, as calculated in a sample month (April) in 1981.

A. Parallel charge lines	45%
B. Diverging charge lines	50%
C. Abrupt change in sustained levels of frequency and/or average charge pattern	3%
D. Partial period frequencies	trivial
E. Low frequencies with erratic average charge	<u>2%</u>
	100%

1. The first part of the paper discusses the importance of the study of the history of the English language. It is noted that the English language has a long and rich history, and that the study of its history is essential for a full understanding of the language. The paper then discusses the various factors that have influenced the development of the English language, including the influence of other languages, the influence of social and cultural changes, and the influence of technological advances.

2. The second part of the paper discusses the importance of the study of the history of the English language. It is noted that the English language has a long and rich history, and that the study of its history is essential for a full understanding of the language. The paper then discusses the various factors that have influenced the development of the English language, including the influence of other languages, the influence of social and cultural changes, and the influence of technological advances.

3. The third part of the paper discusses the importance of the study of the history of the English language. It is noted that the English language has a long and rich history, and that the study of its history is essential for a full understanding of the language. The paper then discusses the various factors that have influenced the development of the English language, including the influence of other languages, the influence of social and cultural changes, and the influence of technological advances.

4. The fourth part of the paper discusses the importance of the study of the history of the English language. It is noted that the English language has a long and rich history, and that the study of its history is essential for a full understanding of the language. The paper then discusses the various factors that have influenced the development of the English language, including the influence of other languages, the influence of social and cultural changes, and the influence of technological advances.

5. The fifth part of the paper discusses the importance of the study of the history of the English language. It is noted that the English language has a long and rich history, and that the study of its history is essential for a full understanding of the language. The paper then discusses the various factors that have influenced the development of the English language, including the influence of other languages, the influence of social and cultural changes, and the influence of technological advances.

We observed that the parallel charge lines and diverging charge lines, which account for 95% of the total dollars allowed, represented situations in which Medicare outlays are under control, i.e., either the growth in billed average charges is the same as in allowed charges (parallel charge lines), or the growth in allowed charges is maintained at a lower rate than the growth in billed charges. Parallel charge lines represented the situation where average billed charges per month and average allowed charges per month follow similar patterns of fluctuating growth. Figures 3, 4 and 5 display the average billed and allowed charges for Set I-7, Respiratory System; Set I-53, Office Visits; and for all services combined, respectively, for assigned and unassigned claims. The similarity between both sections of each of the graphs is marked.

Diverging charge lines represent the situation where the average billed charge per month is increasing at a greater rate than the average allowed charge. Figure 6, for Set I-38, illustrates divergent charge lines. All Anesthesia Services sets other than III-11 and III-16, which were characterized by low frequencies and exhibited erratic average charge patterns, displayed the pattern of diverging charge lines.

Our examination of the data, analysis of the coding systems and discussion with SCBCBS personnel has led us to conclude that the following are possible explanations for sets exhibiting the diverging charge pattern:

Comparison of Average Charges in terms of
Allowed and Billed, January 1977-June 1981,
Set I-7: Meidcare-Services: Respiratory
System Assigned and Unassigned Data

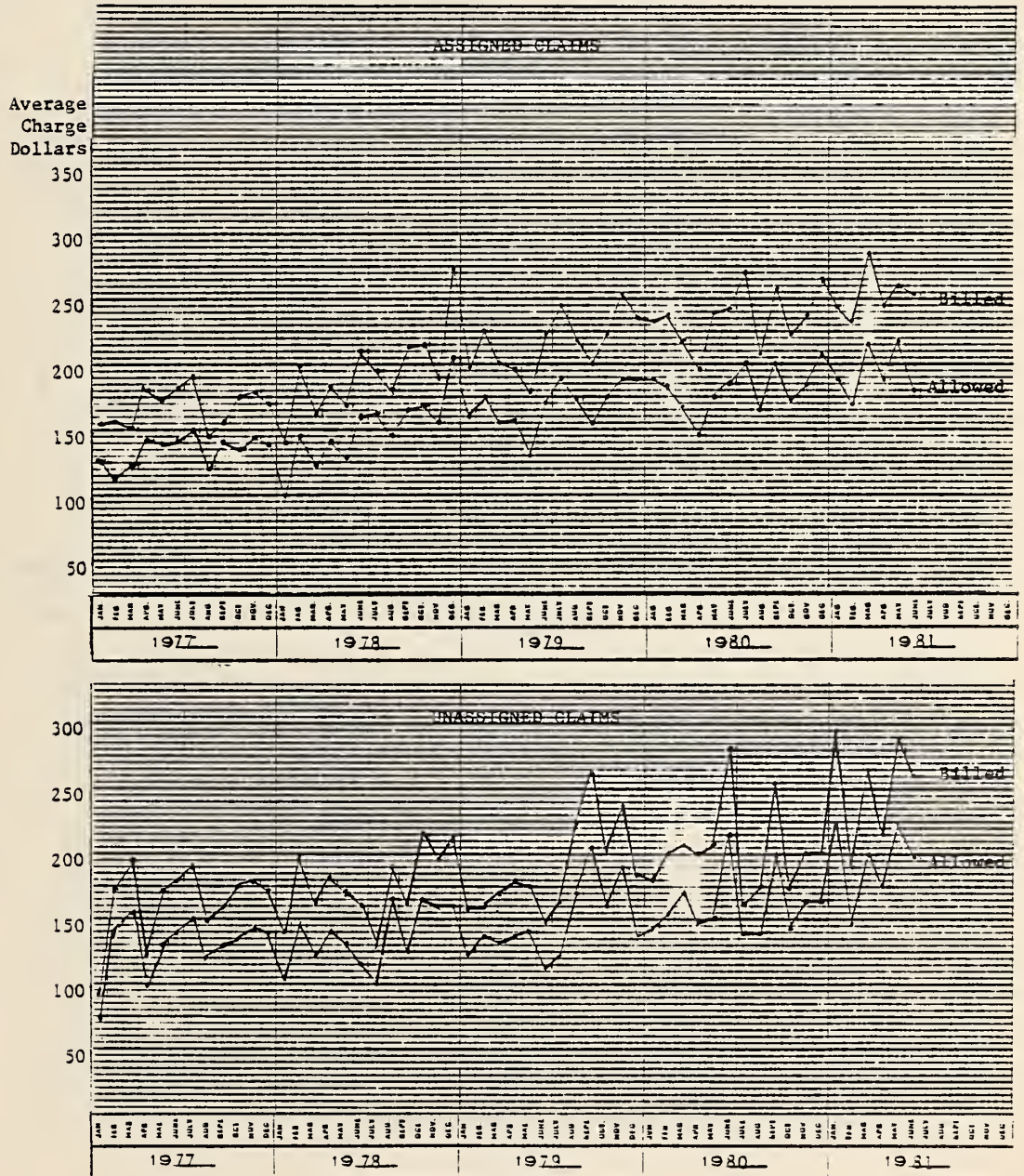


Figure 3



Comparison of Average Charge in Terms of Allowed and Billed,
January 1977 - June 1981, Set I-53: Medicine - Services:
Office Visits, Assigned and Unassigned Claims

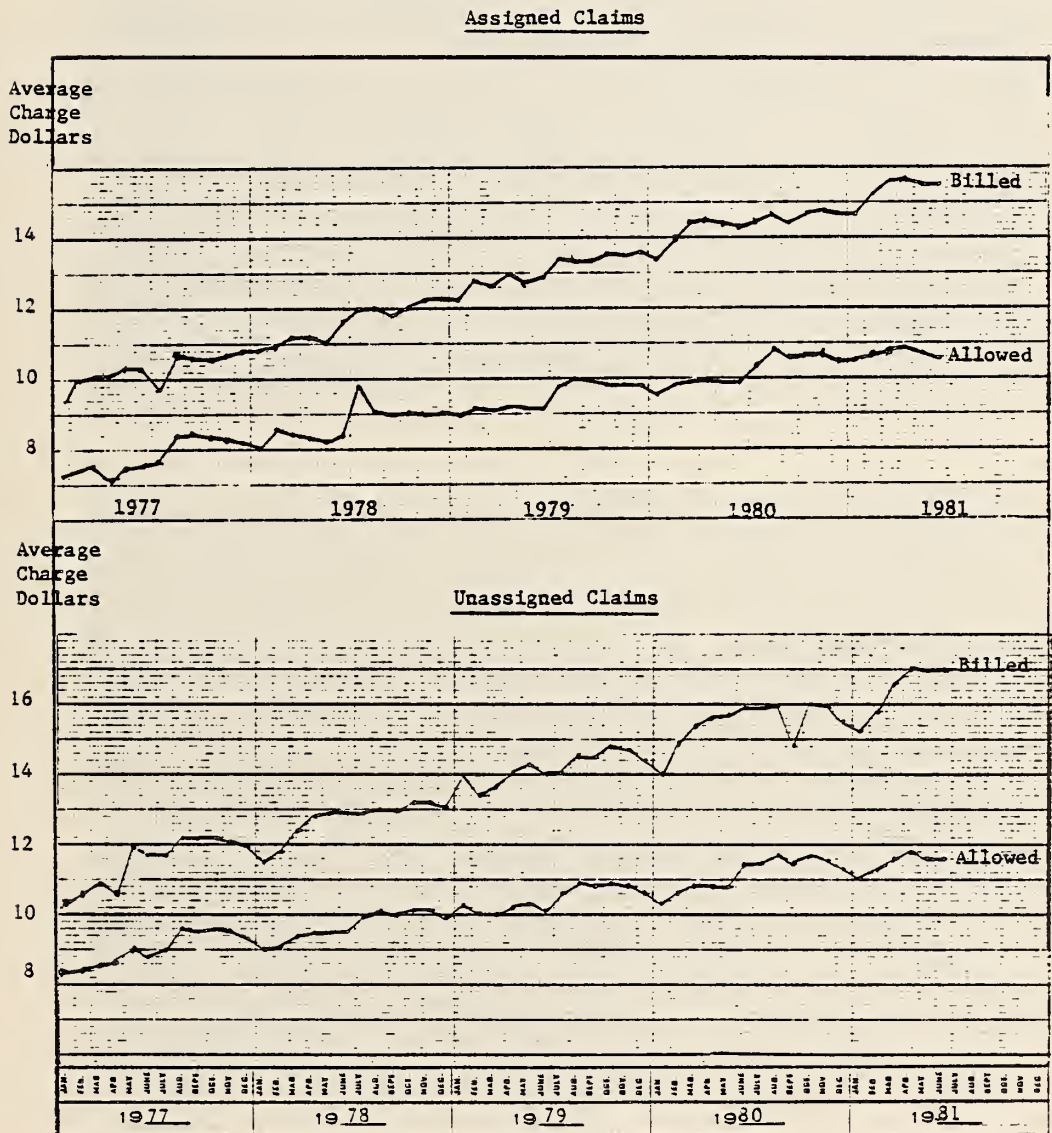


Figure 4



Comparison of Average Charge in Terms of Allowed and Billed, January 1977-June 1981, All Services Combined, Assigned and Unassigned Claims

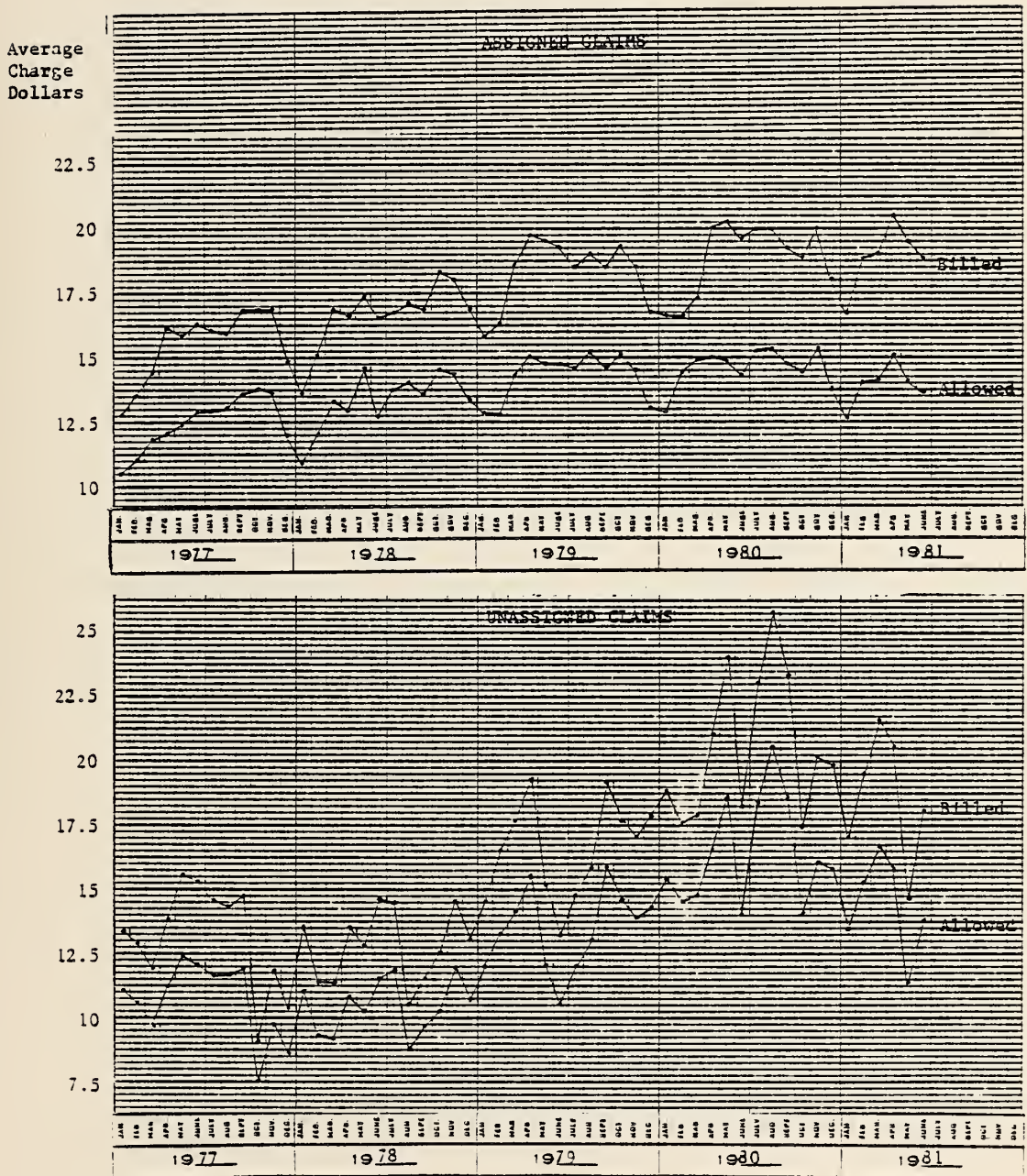


Figure 5



Average Charge
Dollars

Average Charge for Services Per Month in Terms of
Allowed and Billed Charges, January 1977 - June 1981,
Set I-38: Diagnostic Radiology - Chest (Professional
and Technical).

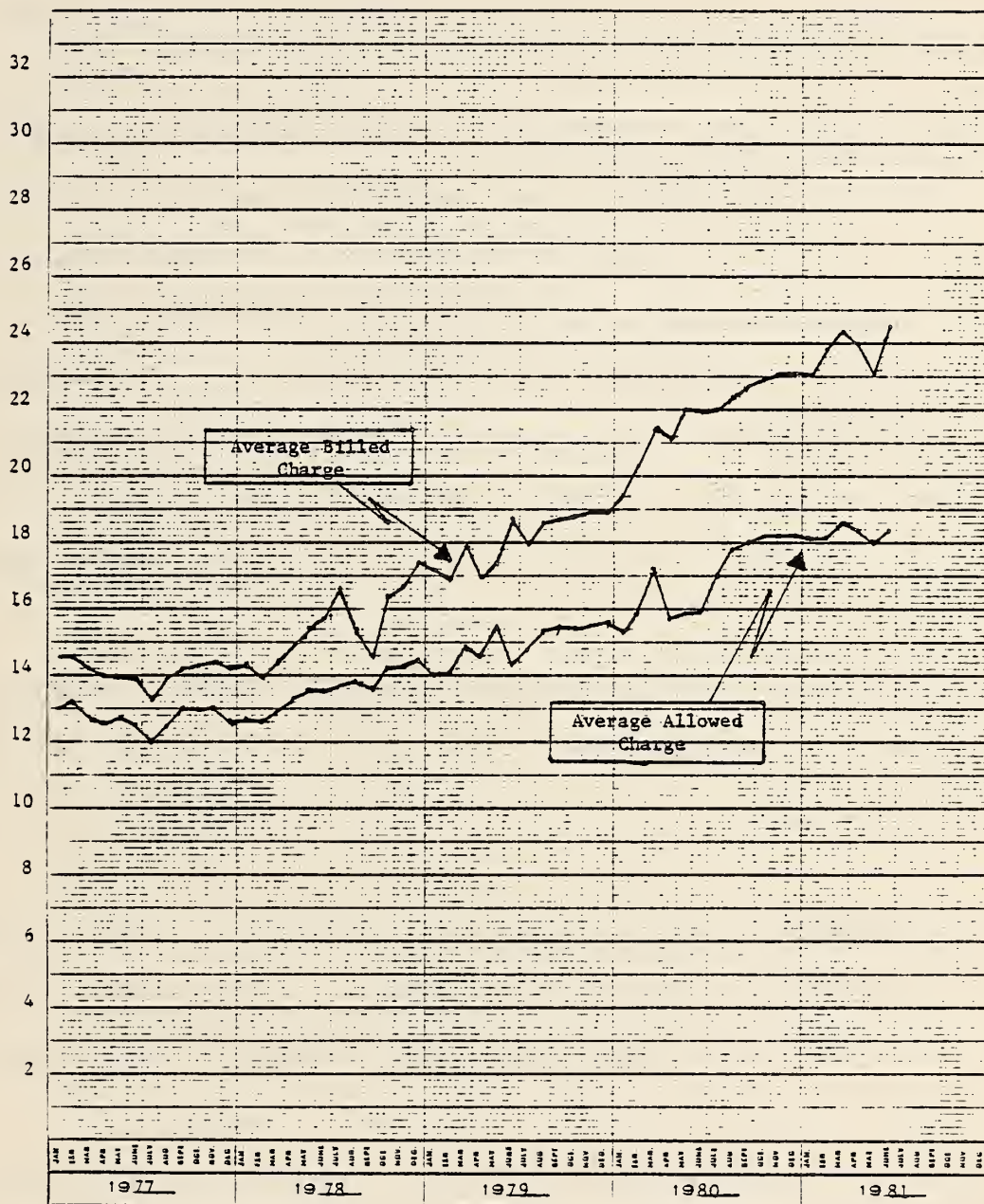


Figure 6



- The HCPCS permitted providers to bill for new levels of service when more complex or complicated services were rendered although reimbursement by HCFA defines only a lower level of service for which payment is allowed;
- A higher reimbursement profile in succeeding years requires physicians to increase the current year's charges even if only a fraction of the charge is reimbursed this year;
- In general, some individual physicians increase their fees to compensate for their increased costs. Frequently, this increase is higher than the general inflation rate incorporated into HCFA's economic index (the limiting factor of the allowed charge lines on the graphs).

The remaining patterns indicate situations in which aberrations in the patterns of frequency or charge warrant investigation. We reviewed some of the aberrant graphs and found that:

- Abrupt changes in frequency of services or average charge can indicate coding errors. Figures 7 and 8 display examples of an abrupt change in frequency and average charge respectively.
- Abrupt changes in average charge can indicate an actual change caused by environmental factors such as changes in laboratories' services, regulations, etc. This pattern of abrupt change identifies the set of procedures or services for which investigation is necessary.

1880. 1881. 1882. 1883. 1884. 1885. 1886. 1887. 1888. 1889. 1890. 1891. 1892. 1893. 1894. 1895. 1896. 1897. 1898. 1899. 1900.

1901. 1902. 1903. 1904. 1905. 1906. 1907. 1908. 1909. 1910. 1911. 1912. 1913. 1914. 1915. 1916. 1917. 1918. 1919. 1920.

1921. 1922. 1923. 1924. 1925. 1926. 1927. 1928. 1929. 1930. 1931. 1932. 1933. 1934. 1935. 1936. 1937. 1938. 1939. 1940.

1941. 1942. 1943. 1944. 1945. 1946. 1947. 1948. 1949. 1950. 1951. 1952. 1953. 1954. 1955. 1956. 1957. 1958. 1959. 1960.

1961. 1962. 1963. 1964. 1965. 1966. 1967. 1968. 1969. 1970. 1971. 1972. 1973. 1974. 1975. 1976. 1977. 1978. 1979. 1980.

1981. 1982. 1983. 1984. 1985. 1986. 1987. 1988. 1989. 1990. 1991. 1992. 1993. 1994. 1995. 1996. 1997. 1998. 1999. 2000.

2001. 2002. 2003. 2004. 2005. 2006. 2007. 2008. 2009. 2010. 2011. 2012. 2013. 2014. 2015. 2016. 2017. 2018. 2019. 2020.

2021. 2022. 2023. 2024. 2025. 2026. 2027. 2028. 2029. 2030. 2031. 2032. 2033. 2034. 2035. 2036. 2037. 2038. 2039. 2040.

2041. 2042. 2043. 2044. 2045. 2046. 2047. 2048. 2049. 2050. 2051. 2052. 2053. 2054. 2055. 2056. 2057. 2058. 2059. 2060.

2061. 2062. 2063. 2064. 2065. 2066. 2067. 2068. 2069. 2070. 2071. 2072. 2073. 2074. 2075. 2076. 2077. 2078. 2079. 2080.

2081. 2082. 2083. 2084. 2085. 2086. 2087. 2088. 2089. 2090. 2091. 2092. 2093. 2094. 2095. 2096. 2097. 2098. 2099. 2100.

2101. 2102. 2103. 2104. 2105. 2106. 2107. 2108. 2109. 2110. 2111. 2112. 2113. 2114. 2115. 2116. 2117. 2118. 2119. 2120.

2121. 2122. 2123. 2124. 2125. 2126. 2127. 2128. 2129. 2130. 2131. 2132. 2133. 2134. 2135. 2136. 2137. 2138. 2139. 2140.

Frequency of Services Per Month
 January 1977-June 1981
 Set I-32: Ocular Adnexa - Eyelids

Frequency of Services

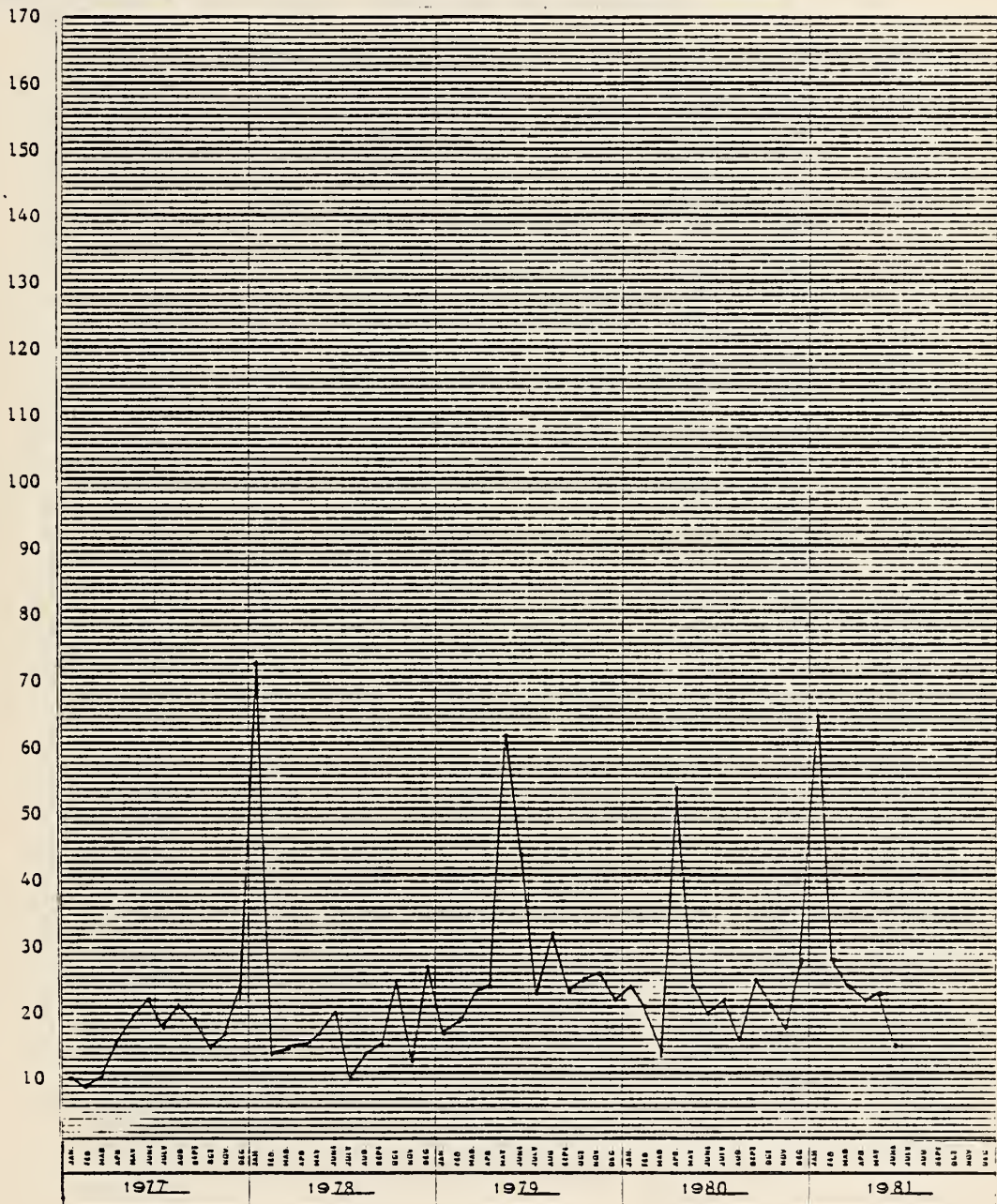


Figure 7



Average Charge for Services Per Month in Terms of Allowed and Billed Charges, January 1977 - June 1981, Set I-50: Laboratory and Pathology - Anatomic Pathology - Cytopathology and Cytogenetic Studies (Professional and Technical).

Average Charge
Dollars

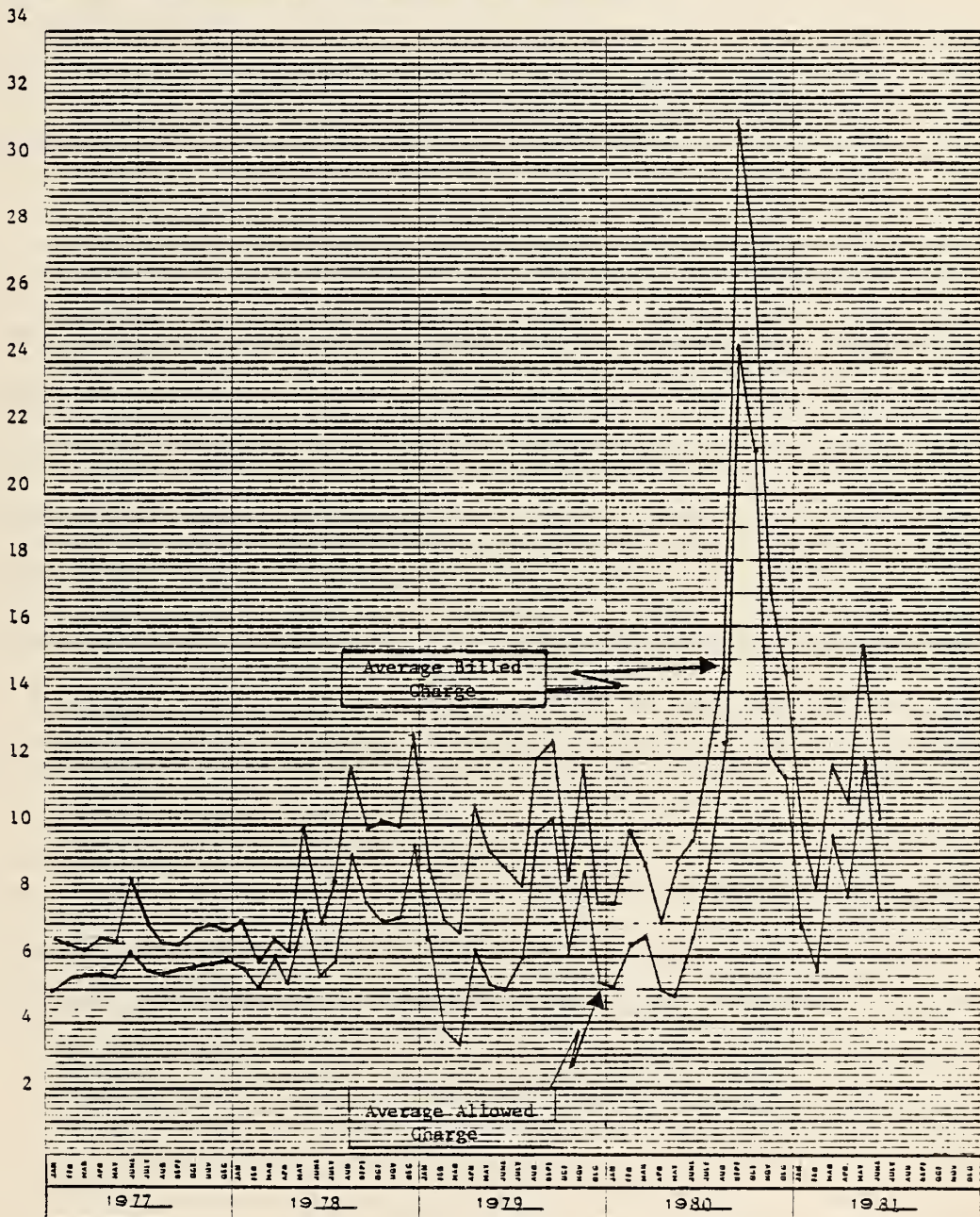


Figure 8

- A graph with partial period frequencies, as exemplified by Figure 9, Set I-64, did not indicate a cessation of services during the observation period. The cause of this pattern is most likely to be a type of coding problem or missing data. In the particular example, the frequency was not sufficient to warrant lengthy examination.

A small percentage of the sets (2%) displayed erratic charge patterns. In all cases, analysis of the data revealed that these were sets with low reported frequencies of service. The sets used in this study were based on medical consistency. The iterative step of combining sets based on frequency of usage was not necessary for evaluating the effect of total outlays and was not completely done. Such an iterative procedure is mandatory if the sets are to be used to monitor a coding conversion. An example of an erratic curve judged to be meaningless because of the low frequency is depicted in Figure 10 for Set I-24.

Some sets resulted in graphs which fit into one of the five general patterns listed on page 31 except for one or more unusual months. Figure 11 for Set I-67 is an example of this type of curve.



Frequency of Services Per Month, January 1977 -
June 1981, Set I-64: Prevention Health Care.

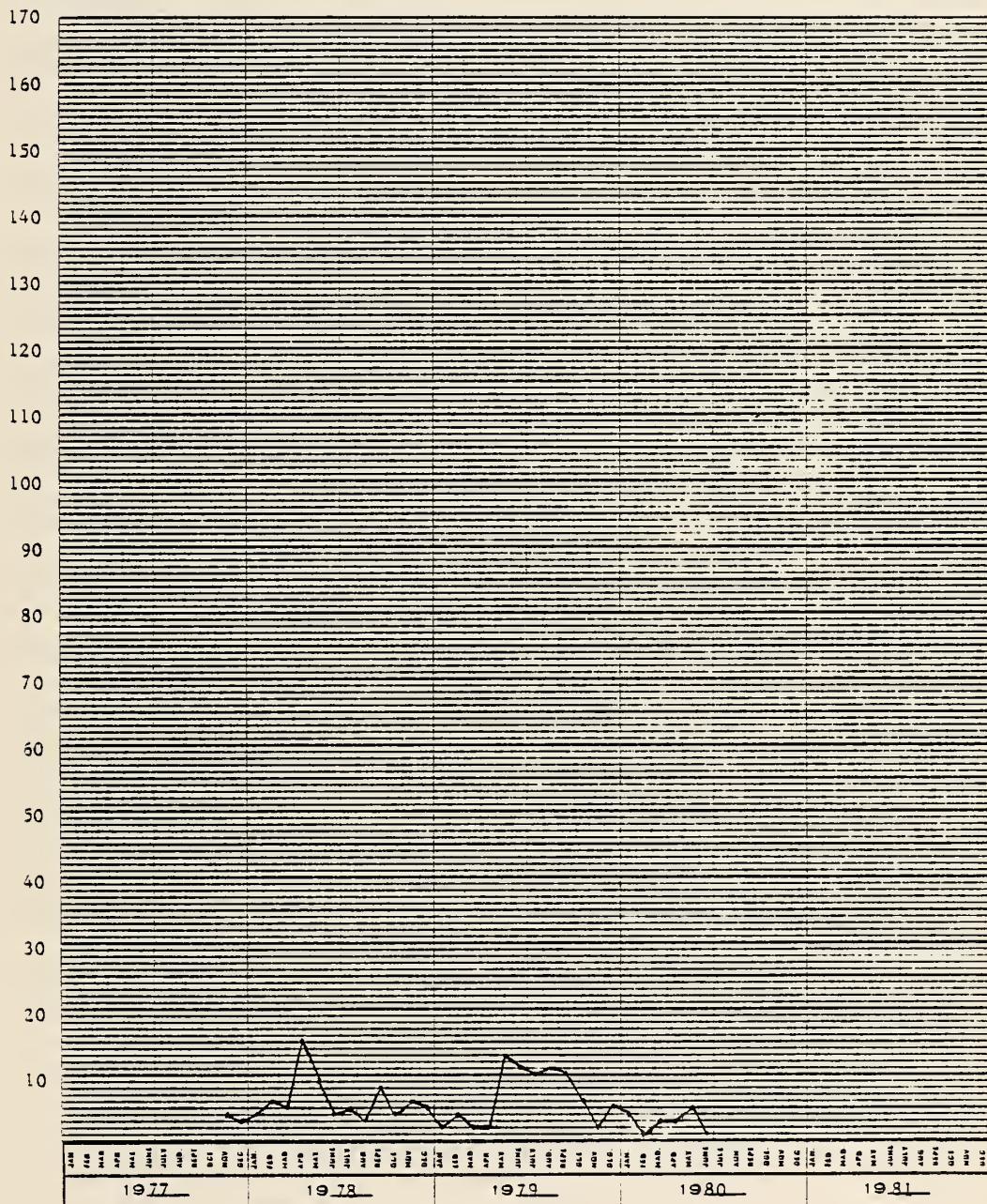


Figure 9



Average
Charge Dollars

Average Charge for Services Per Month in Terms of Allowed
and Billed Charges, January 1977 - June 1981, Set I-24:
Maternity Care and Delivery (Including Removal of Hydatidi-
form Male).

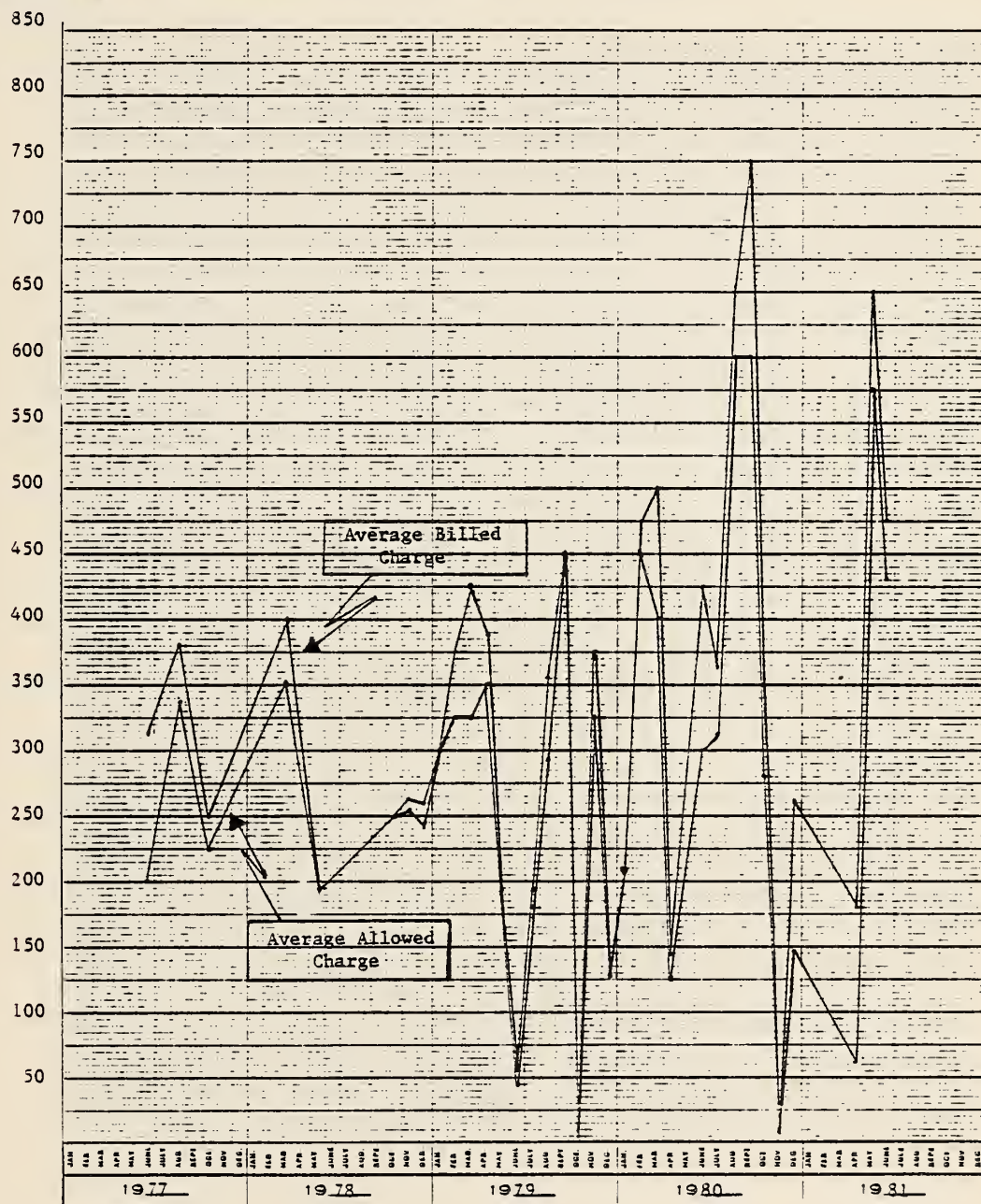


Figure 10

Frequency of Services Per Month, January 1977 -
June 1981, Set I-67: Dialysis - Hemodialysis.

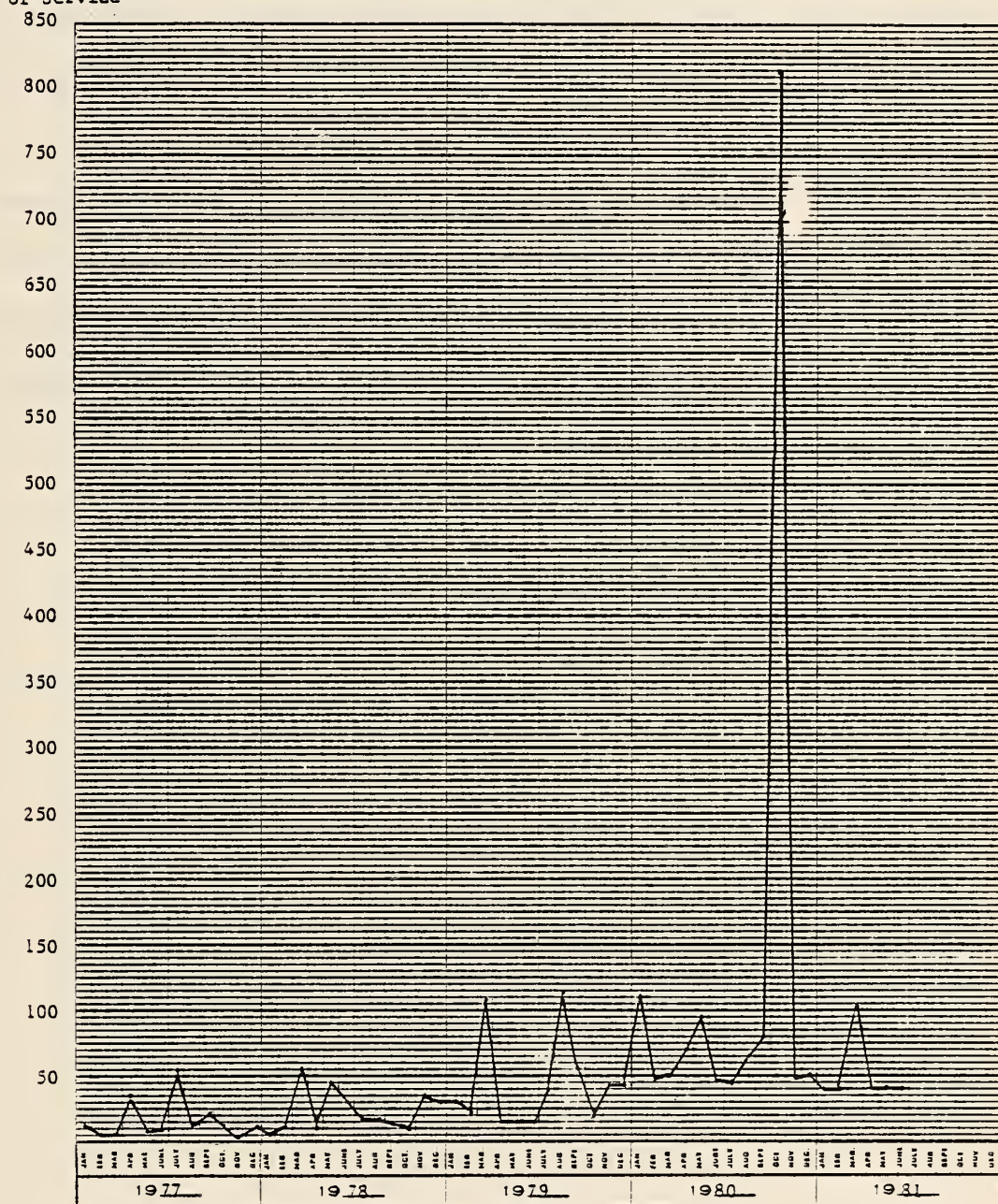


Figure 11



Appendix B contains our assignment of each set to one of the dominant patterns. Volume II of this report contains a complete collection of frequency and average charge--allowed and billed--for sets using assigned and total claims.

A subsequent report by Moshman Associates to HCFA will consider the utility and mechanics of using these patterns and the data of the type graphically portrayed in Volume II as the basis of a automated carrier control mechanism.



IV. LIMITATIONS OF THIS STUDY

The findings and conclusions discussed in the previous chapter should be considered in the light of the following assumptions made or other limitations.

- The periods included in the analysis are assumed to be random samples from conceptually long periods before and after the changeover. The limited period for which actual data were available may contain a typical event, for which no adjustment was made, and which could modify the results of the analysis.
- The model $y = A 10^{b(t - t_0)}$ was selected for its simplicity and the assumption of a compound rate of growth. Other and more complex models may be applicable.
- The construction of confidence intervals and the use of the t-test are based on the assumption that monthly observations of $\log y$ are normally distributed about the regression line with a constant variance. Departures from normality may affect the statistical procedures although the procedures used are robust, i.e., they are relatively insensitive to minor departures from normality.

V. RECOMMENDATIONS AND OBSERVATIONS

1. We recommend that additional conversions to HCPCS be authorized with an analysis comparable to the one reported herein on SCBCBS. It is important to verify that South Carolina is not unique in this respect.

2. If additional carriers are permitted to convert to HCPCS, the South Carolina experience will be a continued source of comparison. In this event, a more precise estimate of the South Carolina growth rate would be desirable. We recommend that two additional years of data collection and analysis be conducted; this will result in a five-fold increase in the precision of the estimate of the South Carolina growth rate.

3. The continued analysis of changeover carriers is recommended to ensure that HCFA has sufficient and diverse experience to enable assistance to be extended to other converting carriers to insure that no new escalation in costs ensues.

4. Our investigation of the effect of the changeover to HCPCS in South Carolina required us to take a broad view of the adoption of a national and medical procedural coding system by HCFA. Various administrative benefits would accrue to HCFA if HCPCS, with its own extender codes, should be adopted. Implementation of HCPCS would enable HCFA to:

- Reflect medical technological changes in a uniform manner;
- Compare frequency of services among different carriers without the distortions introduced by variations and inconsistencies in the medical terminologies used by local carriers;
- Compare billed and allowed charges among different carriers, eliminating the same problem to which reference was made in the preceding point;
- Eliminate the unknown effect of the coding system itself when making comparisons among carriers;
- Convert the profile of a provider moving from one area to another by adjusting existing profiles for the HCPCS code by the relative values of charges of the two areas; and
- Eliminate the need for providers moving from one area to another to learn a new code.

5. If HCFA adopts HCPCS--or any other system--as a national system, a secretariat will be needed to maintain the viability of the system and to provide for rapid communication to and from carriers on terminological and coding problems. The secretariat's functions would be to:

- Initiate or receive suggestions for additions, deletions or modifications in terminology;
- Solicit comments on proposed changes from providers, professional societies, public agencies, carriers and other experts;
- Evaluate comments and propose changes to HCFA for concurrence, modification or denial;

- Assign codes to new terms;
- Disseminate changes to all carriers and other interested parties including updated pages of coding manuals; and
- Answer questions from carriers on interpretations of HCPCS.

These benefits and obligations should be considered by HCFA in its decision on whether or not to adopt HCPCS as a national system.

APPENDIX A

Description of Sets

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|-------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------|
| | | MAJOR PHYSICIAN SERVICES | | |
| | | <u>Surgery</u> (Continued) | | |
| 2300-2419 | 2 | 1-8 Cardiovascular System - heart and pericardium | 33010-33999 | 2 |
| 2420-2449 | 2 | 1-9 Cardiovascular System - excision of thrombus and embolus | 34001-34490 | 2 |
| 2450-2559 | 2 | 1-10 Cardiovascular System - repair and exploration | 35001-35910 | 2 |
| 2560-2562,
2568-2582,
2584-2585,
2599-2749
0799 | 2

1 | 1-11 Cardiovascular System - Introductions, catheterizations, ligations and other vascular procedures | 36000-37799
80072 | 2
1 |
| 2750-2849 | 2 | 1-12 Ileum and Lymphatic Systems | 38090-38999 | 2 |
| 2850-2899,
3771-3775 | 2 | 1-13 Mediastinum and Diaphragm | 39000-39599 | 2 |
| 2900-3139 | 2 | 1-14 Digestive System - upper (dentoalveolar structures, palate, uvula, salivary glands and ducts, pharynx, adenoids and tonsils) | 40490-42999 | 2 |
| 3140-3249 | 2 | 1-15 Digestive System - esophagus and stomach | 43000-43999 | 2 |

APPENDIX A
DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|----------------------------------|-----------|--------------------------------------------------------------------------|-----------------------------|-----------|
| | | MAJOR PHYSICIAN SERVICES | | |
| | | <u>Surgery</u> (Continued) | | |
| 3250-3440,
3449-3559,
3444 | 2 | 1-16 Digestive System - lower (Intestines, appendix,
rectum and anus) | 44000-46999 | 2 |
| 3560-3689 | 2 | 1-17 Digestive System - liver, biliary tract and
pancreas | 47000-48999 | 2 |
| 3690-3770,
3777-3799 | 2 | 1-18 Digestive System - abdomen, peritoneum and omentum | 49000-49999 | 2 |
| 3800-3949 | 2 | 1-19 Urinary System - kidney and ureter | 50010-50980,
T5000-T5035 | 2 |
| 3950-4089 | 2 | 1-20 Urinary System - bladder (including diagnostic
procedures) | 51000-52805 | 2 |
| 4090-4149 | 2 | 1-21 Urinary System - urethra | 53000-53899 | 2 |
| 4150-4449 | 2 | 1-22 Male Genital System | 54000-55899 | 2 |
| 4450-4799 | 2 | 1-23 Female Genital System | 56000-58999 | 2 |



APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NARSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|---------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------|
| 4800-4899
9800,
9850-9852,
9558 | 3
6 | MAJOR PHYSICIAN SERVICES
<u>Surgery</u> (Continued)

1-24 Maternity Care and Delivery (including removal of hydramniotic fluid)

1-25 Endocrine System

1-26 Nervous System

1-27 Eye - eyeball

1-28 Eye- anterior segment: cornea, anterior chamber, anterior sclera and iris, ciliary body

1-29 Eye - anterior segment: lens and other procedures

1-30 Eye - posterior segment: vitreous, retinal detachment and other procedures | 59000-59899
90070 | 3
6 |
| 4900-4999 | 2 | | 60000-60699 | 2 |
| 5000-5099
6900 | 2
T | | 61000-64999 | 2 |
| 5400-5429,
5431-5436,
5476, 5490,
5491,
5700-5701 | 2 | | 65091-65290 | 2 |
| 5430,
5439-5445,
5477-5489,
5493-5559 | 2 | | 65300-66770 | 2 |
| 5560-5579 | 2 | | 66800-66999 | 2 |
| 5580-5619 | 2 | | 67005-67299 | 2 |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| HAOSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------|
| | | MAJOR PHYSICIAN SERVICES
<u>Surgery (Continued)</u> | | |
| 5620-5669 | 2 | 1-31 Ocular Adnexa - extraocular muscles and orbit | 67311-67599 | 2 |
| 5670-5699 | 2 | 1-32 Ocular Adnexa - eyelids | 67700-67938,
67999, 67950 | 2 |
| 5703-5739 | 2 | 1-33 Ocular Adnexa - conjunctiva | 68020-68399 | 2 |
| 5740-5799 | 2 | 1-34 Ocular Adnexa - lacrimal system | 68400-68899 | 2 |
| 5800-5999 | 2 | 1-35 Auditory System | 69000-69979 | |
| | | <u>Radiology and Pathology and Laboratory</u> | | |
| 7000-7099,
7585-7586,
7584 | 5 | 1-36 Diagnostic Radiology - head and neck (professional and technical) | 70002-70470 | 5 |
| 7000-7099
7585-7586,
7584, 7589,
7101-7199,
7200-7249,
7250-7329,
7560, 7591 | P | 1-37 Professional components of diagnostic radiology, diagnostic ultrasound, radiation therapy, nuclear medicine, and laboratory and pathology | 70002-70470,
71000-71270,
72010-72296,
73000-73660,
74000-74340,
74400-76499
93280, | P |

APPENDIX A
DESCRIPTIONS OF SETS
(Continued)

| NAMSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 7330-7359,
7363-7399,
7563-7573,
7460-7558,
7599,
7401, 7459,
7909, 7400,
7600-7613,
7699,
7700-7716,
7799,
7800-7944,
7999,
6500-6520,
6599, 6649,
6600, 6605,
6650-6851,
6999, 6853,
6860,
0002-8159,
8564,
8600-8627,
8634-8635,
8637-8638,
8642,
8646-8651,
8663,
8670-8379 | P | MAJOR PHYSICIAN SERVICES

<u>Radiology and Pathology and Laboratory (Continued)</u>

1-37 (Continued) | 76500-76999,
93300-93308,
77260-77999,
78000-79999,
80003-84999,
85000-85999,
86000-86999,
87001-87999,
P7000,
88104-88299
88300-88399
89000-89399,
90699 (A) | P |

APPENDIX A
DESCRIPTIONS OF SETS
(Continued)

| HABSP Codes | TOS Codes | Description of Procedures | ICFCS Codes | TOS Codes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------|-------------|-----------|
| 8360-8459,
6780-6820,
6849, 8962,
8460-8563,
8599, 8997,
8964-8965,
8564, 8581,
8583-8584,
8586,
8588-8589,
8591, 8971,
8566, 8654,
8660-8661,
8880-8909,
8920-8931
8935-8949
8628-8633,
8636, 8639,
8643, 8645,
8659, 8662,
8669,
8950-8952,
8967-8980,
8998, 8999,
9851-9854 | P | MAJOR PHYSICIAN SERVICES

Radiology and Pathology and Laboratory (Continued)

I-37 (Continued) | | |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|
| | | MAJOR PHYSICIAN SERVICES | | |
| | | <u>Radiology and Pathology and Laboratory (Continued)</u> | | |
| 7101-7199,
7509 | 5 | I-38 Diagnostic Radiology - chest (professional and technical) | 71000-71270 | 5 |
| 7200-7249 | 5 | I-39 Diagnostic Radiology - spine and pelvis (professional and technical) | 72010-72296 | 5 |
| 7250-7329,
7560 | 5 | I-40 Diagnostic Radiology - upper and lower extremities (professional and technical) | 73000-73660 | 5 |
| 7330-7459,
7593 | 5 | I-41 Diagnostic Radiology - abdomen and gastrointestinal tract (professional and technical) | 74000-74340 | 5 |
| 7461-7499,
7563-7571,
7460-7558,
7559 | 5 | I-42 Diagnostic Radiology - urinary tract, gynecological and obstetrical, vascular system, veins and lymphatics, transcatheter therapy and biopsy and miscellaneous including cardiac fluoroscopy (professional and technical) | 74400-76499
93280 | 5
6, B |
| 7401-7459,
7909, 7400 | 5 | I-43 Diagnostic Ultrasound including Echocardiography (professional and technical) | 76500-76999
93300-93308 | 5
6 |
| 7600-7611,
7699 | 5, E | I-44 Radiation Therapy (professional and technical) | 77260-77999 | 5, E |

APPENDIX A

DESCRIPTIONS OF SETS
(Cont Inued)

| NABSP Codes | TOS Codes | Description of Procedures | ICPCS Codes | TOS Codes |
|------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------|-------------|-----------|
| | | MAJOR PHYSICIAN SERVICES | | |
| | | <u>Radiology and Pathology and Laboratory (Cont Inued)</u> | | |
| 7700-7716,
7799 | 5, E | 1-45 Nuclear Medicine - diagnostic and therapeutic
(professional and technical) | 78000-79999 | 5, E |
| 7800-7944,
7999 | 5 | | | |
| 6500-6520,
6599, 6649,
6600, 6605,
6650-6851,
6999, 6853,
6860 | T | 1-46 Laboratory and Pathology - chemistry and
toxicology (professional and technical) | 80003-84999 | 8 |
| 8002-8359,
8564,
8600-8627,
8634-8635,
8637-8638,
8642,
8646-8651,
8663,
8670-8879 | B | | | |
| 8460-8459 | B | 1-47 Laboratory and Pathology - hematology
(professional and technical) | 85000-85999 | 8 |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|
| | | MAJOR PHYSICIAN SERVICES | | |
| | | <u>Radiology and Pathology and Laboratory (Continued)</u> | | |
| 6780-6820,
6849
8962,
8460-8563,
8599, 8997,
8964-8965,
8564, 8581,
8583-8584,
8586,
8588-8589,
8591, 8591,
8566 | T
8 | 1-48 Laboratory and Pathology - immunology - includes
urology, serology, immunohematology and blood
banking (professional and technical) | 86000-86999 | 8 |
| 8660-8661,
8880-8909,
8654 | 8 | 1-49 Laboratory and Pathology - microbiology - includes
bacteriology, mycology, parasitology and
virology (professional and technical) | 87001-87999,
87000 | 8 |
| 8920-8931 | 8 | 1-50 Laboratory and Pathology - Anatomic Pathology -
cytopathology and cytogenetic studies
(professional and technical) | 88104-88299 | 8 |
| 8935-8949 | 8 | 1-51 Laboratory and Pathology - surgical pathology
(professional and technical) | 88300-88399 | 8 |



APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|-------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------|
| 8628-8633,
8636, 8639,
8634, 8645,
8659, 8662,
8669,
8950-8952,
8967-8980,
8998, 8999
9853-9854 | 8

6 | MAJOR PHYSICIAN SERVICES

<u>Radiology and Pathology and Laboratory (Continued)</u>

I-52 Laboratory and Pathology - miscellaneous
(professional and technical) | 89000-89399 | 8 |
| 9020-9029,
9123, 9126,
9120, 9049,
9149
9977-9978 | B, 6, C

6 | <u>Medicine - Services</u>

I-53 Office Visits | 90000-90080,
90699(2, 3, B) | 6, B, C |
| 9064-9066,
9069 | B, 6, C | I-54 Home Visits | 90100-90170,
90699(4) | 6, B, C |
| 9070-9072 | B, 6, C | I-55 Hospital Visits - Initial care | 90200-90220 | 6, B, C |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|------------------------------------|---------------|---------------------------------------------------------------------------|----------------------------------------------------|--------------|
| | | MAJOR PHYSICIAN SERVICES | | |
| | | <u>Medicine - Services (Continued)</u> | | |
| 9074-9076,
9078, 9089 | B, 6, C | I-56 Hospital Visits - subsequent care | 90240-90280,
90699(1) | 6, B, C |
| 9080 | B, 6, C | I-57 Hospital Visits - newborn care (Including conference with parent(s)) | 90285 | 6, B, C |
| 9090 | B, 6, C | I-58 Skilled Nursing Care, Extended Care Facility - initial care | 90300-90320 | 6, B, C |
| 9091-9095,
9098-9099 | B, 6, C | I-59 Skilled Nursing Care, Extended Care Facility - subsequent care | 90340-90370,
80030,
90699(8) | 6, B, C |
| 9112-9118,
9110, 9119 | B, 6, C | I-60 Nursing Home, Custodial Care | 90400-90470,
80040,
90699(7),
99062-99065 | 6, B, C
P |
| 9120, 9123,
9126, 9144,
9149 | C, 6,
B, P | I-61 Emergency Department Services | 90550-90570 | 6, B, C |
| 9150, 9153,
9169 | 9, C | I-62 Consultations | 90600-90630 | 9, C |

(Continued)

A-13

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| HAOSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------|
| | | MAJOR PHYSICIAN SERVICES | | |
| | | <u>Medicine - Services (Continued)</u> | | |
| 8960
9280 | 6
8 | I-70 Gastroenterology | 91000-91299 | 6 |
| 9300-9303,
9308, 9310,
9340, 9304,
9016 | 6 | I-71 Ophthalmology - general ophthalmological services | 92002-92019
V0100, V0101,
V0110, V0120, | 6, B
G |
| 9305-9306,
9311-9312,
9315-9320 | 6 | I-72 Special Ophthalmological Services | 92020-92140
V0115-V0117 | 6, B
G |
| 9322,
9325-9342 | 6 | I-73 Ophthalmoscopy | 92225-92260 | 6, B |
| 9349, 9344 | 6 | I-74 Other Specialized Services | 92265-92285 | 6, B |
| 0001-0004,
0011-0016,
0021-0072,
0080, 0089 | G | I-75 Contact Lens Services, Ocular Prostheses -
artificial eye, spectacle services (including
prostheses for aphakia), supply of materials
and other procedures | V0130-V1599,
A4520, A4530 | G |
| 9930-9934,
9937,
9911, 9955 | 6 | I-76 Special Otorhinolaryngologic Services | 92502,
92504-92547
N0250-N0259 | 6, B
6 |

APPENDIX A

DESCRIPTIONS OF SETS
(Cont Inued)

| HABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|---------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------|-----------------------------|-----------|
| | | MAJOR PHYSICIAN SERVICES
<u>Medicine - Services (Cont Inued)</u> | | |
| 9350-9353,
9360, 9365,
9369 | 6 | I-77 Audiologic Function Tests with Medical Diagnostic Evaluation | 92551-92559 | 6, B |
| 9560, 9563 | 6 | I-78 Cardiovascular - therapeutic procedures | 92920-92971 | 6, B |
| 9370-9387,
9392, 9394,
9389, 9289 | 6 | I-79 Cardiology | 93000-93277 | 6, B |
| 2563-2567,
2583, 2526
9416-9417,
9429, 9410,
9415 | 2
6 | I-80 Cardiac Catheterization and Intracardiac Electrophysiological Procedures | 93501-93562,
93600-93614 | 6, B |
| 9390-9391,
9399,
9430-9449 | 6 | I-81 Other Vascular Studies | 93700-93799 | 6, B |
| 9450-9499,
9583 | 6 | I-82 Pulmonary | 94010-94799 | 6 |
| 9500-9530,
9573, 9959 | 6 | I-83 Allergy and Clinical Immunology - special diagnostic procedures, allergy testing | 95000-95199 | 6, B |

APPENDIX A
DESCRIPTIONS OF SETS
(Continued)

| HAHSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|-----------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------|
| 9533-9559 | 6 | MAJOR PHYSICIAN SERVICES
<u>Medicine - Services (Continued)</u>

1-84 Neurology and Neuromuscular Procedures
(includes EEG, ENG and nerve conduction studies)

1-85 Special Dermatological Procedures

1-86 Physical Medicine

1-87 Special Services and Reports - administrative services

1-88 Special Services - prolonged services critical care, rehabilitative evaluation conference

1-89 Special Services - Other Services

1-90 Surgical Opinion (2nd and 3rd Opinion) | 95819-95999 | 6 |
| 9590-9591, 9595 | 6 | | 96900-96999 | 6, B |
| 9600-9653 | 0 | | 97000-97541, N0700
97700-97799 | 0
6, D |
| 8000-8001
7901-7903, 7915, 7917, 7919 | 8
C | | 99000-99090
P9000-P9001
A4550, A4555, A4582 | 6, B
8
C |
| 9071, 9096, 9088, 9252, 9255, 9574, 9240-9242, 9249 | 6, B, C
6 | | 05210-05240, 05299
99150-99174 | 6
6, B |
| 9250, 9259, 9575-9581, 9585, 9599 | 6 | | 99175-99199
90699(0) | 6, B
6, B, C |
| | W, Z | | | W, Z |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|------------------------------------------------|-----------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------|
| 0001,
0003-0499 | 0 | 11-1 ASSISTANCE AT SURGERY SERVICES
Integumentary System including breast | 10000-11446,
11050,
67951-67975,
12001-17999,
19000-19499 | 0 |
| 0519-0972,
0800-1999,
0500 | 0 | 11-2 Musculoskeletal System including Casting,
Splinting and Strapping | 20000-28899,
29000-29799 | 0 |
| 2000-2299 | 0 | 11-3 Respiratory System | 30000-32999 | 0 |
| 2300-2749,
0799, 9429,
9416-9417 | 0 | 11-4 Cardiovascular System including Cardiac
Catheterization and Therapeutic Procedures | 33010-34490,
35001-35910,
36000, 37799 | 0 |
| 2750-2849 | 0 | 11-5 Hemie and Lymphatic System | 38090-38999 | 0 |
| 2850-2899,
3771-3775 | 0 | 11-6 Mediastinum and Diaphragm | 39000-39599 | 0 |
| 2900-3440,
3449-3770,
3771-3799,
3444 | 0 | 11-7 Digestive System | 40490-49999,
54005 | 0 |

APPENDIX A

DESCRIPTIONS OF SETS
(Cont Inued)

| NAHSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|----------------------------------|-----------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------|
| 3800-4124,
4126-4149,
4125 | 0 | 11-8 Urinary System | 50010-50980,
51000-52805,
53000-53899,
T5000-T5035 | 0 |
| 4150-4449 | 0 | 11-9 Male Genital System | 54000-55899 | 0 |
| 4450-4799 | 0 | 11-10 Female Genital System | 56000-58999 | 0 |
| 4800-4899 | 0 | 11-11 Maternity Care and Delivery | 59000-59899 | 0 |
| 4900-4999 | 0 | 11-12 Endocrine System | 60000-60699 | 0 |
| 5000-5399 | 0 | 11-13 Nervous System | 61000-64999 | 0 |
| 5400-5799 | 0 | 11-14 Eye and Ocular Adnexa | 65091-65290,
65300-66770,
66800-67299,
67311-67599,
67700-67938,
67999,
67950,
68020-68899 | 0 |
| 5800-5799 | 0 | 11-15 Auditory System | 69000-69979 | 0 |
| Any Other Code | 0 | 11-16 Other Categories | Any other Code | 0 |

APPENDIX A
DESCRIPTIONS OF SETS
(Continued)

| NAASP Codes | TOS Codes | Description of Procedures | ICPCS Codes | TOS Codes |
|-------------------------------------------|-----------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------|
| 0001,
0003-0499 | 4 | 111-1 ANESTHESIA SERVICES
Integumentary System Including Breast | 10000-11446,
T1050,
67951-67975,
12001-17999,
19000-19499 | 4 |
| 0519-0792,
0800-1999,
0500 | 4 | 111-2 Musculoskeletal System Including Casting,
Splinting and Strapping | 20000-28899,
29000-29799 | 4 |
| 2000-2299 | 4 | 111-3 Respiratory System | 30000-32999 | 4 |
| 2300-2799,
0799,
9416-9417,
9429 | 4 | 111-4 Cardiovascular System Including Cardiac
Catheterization and Therapeutic Procedures | 33010-34490,
35001-35910,
36000-37799,
93501-93562 | 4 |
| 2750-2849 | 4 | 111-5 Hemic and Lymphatic System | 38090-38999 | 4 |
| 2850-2899,
3771-3775 | 4 | 111-6 Mediastinum and Diaphragm | 39000-39599 | 4 |
| 2900-3441,
3449-3770,
3777-1799 | 4 | 111-7 Digestive System | 40490-49999,
T4005 | 4 |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|-------------|-----------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------|
| 3800-4149 | 4 | ANESTHESIA SERVICES
111-8 Urinary System | 50010-50980,
51000-52805,
53000-53899,
T5000-T5035 | 4 |
| 4150-4449 | 4 | 111-9 Male Genital System | 54000-55899 | 4 |
| 4450-4799 | 4 | 111-10 Female Genital System | 56000-58999 | 4 |
| 4800-4899 | 4 | 111-11 Maternity Care and Delivery | 59000-59899 | 4 |
| 4900-4999 | 4 | 111-12 Endocrine System | 60000-60699 | 4 |
| 5000-5399 | 4 | 111-13 Nervous System | 61000-64999 | 4 |
| 5400-5799 | 4 | 111-14 Eye and Ocular Adnexa | 65091-65290,
65300-66770,
66800-67299,
67311-67599,
67999,
67700-67938,
68020-68899,
67950 | 4 |
| 5800-5999 | 4 | 111-15 Auditory System | 69000-69979 | 4 |

APPENDIX A

DESCRIPTIONS OF SETS
(Cont Inued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|---------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------|
| 9180-9182,
9190-9229,
9300-9349 | 4 | III-16 Medicine - procedures (e.g. psychiatric
therapeutic procedures, ophthalmology) | 90843-90899,
92018-92140,
92225-92260,
92265-92285 | 4 |
| Any Other
Code | 4 | III-17 Other Categories (qualifying circumstances for
anesthesia, anesthesia monitoring and
anesthesia consultations) | Any Other
Code | 4 |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NADSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------|
| Jan. 1977
to
June 1978

2000-2003,
2010-2013,
2020-2023,
2030-2033,
2040-2043,
2100-2103,
2110-2113,
2120-2123,
2130-2133,
2140-2143,
2200-2203,
2210-2213,
2220-2223,
2230-2233,
2240-2243,
2300-2303,
2310-2313,
2320-2323,
2330-2333,
2340-2343,
2400-2403,
2410-2413,
2420-2423, | G, 1 | IV-1 Durable Medical Equipment - purchase

DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES | E0100-E0330,
E1390-E1395,
E1399,
E0420-E1310 | G, 1 |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------|-------------|-----------|
| 2430-2433,
2440-2443,
2500-2503,
2510-2513,
2520-2523,
2530-2533,
2540-2543,
2580, 2620,
2600-2602,
2610, 2612,
2615-2617,
2700-2703,
2710-2713,
2720-2723,
2730,
2735-2737,
2740-2741,
2745-2746,
2752,
2755-2756,
2760-2761,
2775-2776,
2780-2781,
2785-2786,
2800-2806,
2830-2834, | 6, 1 | IV-1 (Continued)

DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Continued) | | |

APPENDIX A
DESCRIPTORS OF SETS
(Continued)

| RAMSP Codea | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------|-------------|-----------|
| 2840, 2842,
2845-2850,
2855-2856,
2860-2862,
2865,
2870-2871,
2874-2877,
2900,
2910-2915,
2999 | G. 1 | IV-1 (Continued)

DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Continued) | | |
| July 1978
to
June 1980 | | | | |
| 1000-1006,
1010, 1011,
1013, 1016,
1020-1024,
1030-1034,
1040-1043,
1050-1054,
1060-1065,
1070-1071,
1075-1077,
1080-1081,
1085-1087,
1090-1093,
1100-1102, | | | | |

APPENDIX A
DESCRIPTIONS OF SETS
(Cont Inued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------|-------------------------------------------------------|-----------|
| 1110-1111,
1115, 1120,
1125,
1130-1133,
1140-1141,
1145-1148,
1155-1158,
1165-1166,
1170-1178,
1185, 1186,
1190,
1200-1201,
1205-1208,
1215-1218,
1225-1228,
1235-1238,
1245, 1250,
1255, 1260,
1261,
1275-1276,
1299 | 0, 1 | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued)

IV-1 (Cont Inued) | | |
| Jan. 1977
to
June 1978
2000-2003,
2010-2013, | II | IV-2 Durable Medical Equipment - rental | E0100-E0330,
E1390-E1395,
E1399,
E0420-E1310 | II |

APPENDIX A
DESCRIPTIONS OF SETS
(Cont Inued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------|-------------|-----------|
| 2020-2023,
2030-2033,
2040-2043,
2100-2103,
2110-2113,
2120-2123,
2130-2133,
2140-2143,
2200-2203,
2210-2213,
2220-2223,
2230-2233,
2240-2243,
2300-2303,
2310-2313,
2320-2323,
2330-2333,
2340-2343,
2400-2403,
2410-2413,
2420-2423,
2430-2433,
2440-2443,
2500-2503,
2510-2513,
2520-2523, | II | IV-2 (Cont Inued)

DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued) | | |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------|-------------|-----------|
| 2530-2531,
2540-2543,
2580, 2620,
2600-2602,
2610, 2612,
2615-2617,
2700-2703,
2710-2713,
2720-2723,
2730,
2735-2737,
2740-2741,
2745-2746,
2752,
2755-2756,
2760-2761,
2775-2776,
2780-2781,
2785-2786,
2800-2806,
2830-2834,
2840, 2842,
2845-2850,
2855-2856,
2860-2862,
2865, | II | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Continued)

IV-2 (Continued) | | |

| NABSP Codes | TOS Codes | Description of Procedures | ICPCS Codes | TOS Codes |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------|-------------|-----------|
| 2870-2871,
2874-2877,
2900, 2910,
2915, 2999,
9570
July 1978
to
June 1980
1000-1006,
1010, 1011,
1013, 1016,
1020-1024,
1030-1034,
1040-1041,
1050-1054,
1060-1065,
1070-1071,
1075-1077,
1080-1081,
1085-1087,
1090-1093,
1100-1102,
1110-1111,
1115, 1120,
1125,
1130-1133,
1140-1141, | II | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Continued)

IV-2 (Continued) | | |

APPENDIX A

DESCRIPTIONS OF SETS
(Cont Inued)

| HABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------|-----------------|-----------|
| 1145-1148,
1155-1158,
1165-1166,
1170-1178,
1185, 1186,
1190,
1200-1201,
1205-1208,
1215-1218,
1225-1228,
1235-1238,
1245, 1250,
1255, 1260,
1261,
1275-1276,
1299 | II | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued)

IV-2 (Cont Inued) | | |
| Jan. 1977
to
June 1978

2290-2991,
0081, 9569
July 1978
to
June 1980
1280-1281 | G, I | IV-3 Durable Medical Equipment - repairs and
replacements | E1350,
E1360 | G, I |

APPENDIX A
DESCRIPTIONS OF SETS
(Cont Inued)

| RAHSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|--------------------------------------------------------------------------|---------------|--------------------------------------------------------------|---------------------------------|-----------|
| 2995-2996 | G | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued) | A4830 | G |
| 9654-9659 | G | IV-4 Durable Medical Equipment - delivery charges | A2000 | 6 |
| Any
Procedure
Code | 7 | IV-5 Chiropractor | D0101-D9960 | 7 |
| 6000,
6004-6008 | F | IV-6 Dental Services/Oral Surgery | A0001-A0007,
A0030,
A0099 | F |
| Jan. 1977
to
June 1978 | G, H,
I, 8 | IV-7 Ambulance | A9010-A9080,
G, H,
I, E | |
| 8910-8915,
1054, 1147,
1075, 1275,
July 1978
to
June 1980 | | IV-8 Non-covered Charges (Intersex Surgery,
Biofeedback) | 88000-88099 | 8 |
| 1298 | G, H,
I, 8 | | | |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| RAHSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|----------------------------------------------------|-----------|----------------------------------------------------------|----------------------------------------------------|-----------|
| Adjustment Modifier | | DURABLE MEDICAL EQUIPMENT AND OTHER SERVICES (Continued) | Adjustment Modifier | |
| Non Matched TOS vs Procedure Code | | IV-9 Adjustments (adjustment indicator modifier) | Non Matched TOS vs Procedure Code | |
| Hospital Based Physicians (Non Profession service) | # P | IV-10 III-matches T.O.S. with procedure code | Hospital Based Physicians (Non Profession service) | # P |
| Non-Permissible TOS Code | | IV-11 Hospital Based Physician (non-professional only) | Non-Permissible TOS Code | |
| Jan. 1977 to June 1978 | G, I | IV-12 Non-permissible T.O.S. indicators | 1.0100-4.4130, 1.5000-1.7499, 1.8000-1.8499 | G, I |
| | | IV-13 Prosthetic/orthotics - purchase | | |

APPENDIX A

DESCRIPTIONS OF SETS
(Continued)

| HABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------|-------------|-----------|
| 1000-1008,
1010-1013,
1020-1040,
1042-1046,
1048,
1114-1127,
1129, 1132,
1134-1138,
1140-1141,
1400-1402,
1410-1411,
1420-1421,
1423-1426,
1428,
1431-1432,
1450-1459,
1475-1476,
1480-1483,
1490-1492,
1517,
1519-1527,
1530,
1533-1535,
1540-1543,
1545-1550,
1552-1555,
1560-1568, | G, I | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Continued)

IV-13 (Continued) | | |

APPENDIX A
DESCRIPTIONS OF SETS
(Cont Inued)

| HAOSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------|-------------|-----------|
| 1570-1571,
1575-1584,
1590-1596,
1600-1615,
1617,
1620-1627,
1629-1645,
1647-1661,
1711-1720,
1724-1726,
1728, 1730,
1731,
1733-1735,
1737-1739,
1741-1743,
1830,
1745-1751,
1760-1762,
1764-1766,
1768-1769,
1771-1773,
1777,
1800-1809,
1820,
1825-1828, | G, 1 | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued)

IV-13 (Cont Inued) | | |

APPENDIX A
DESCRIPTORS OF SETS
(Cont Inued)

| HABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------|-------------|-----------|
| July 1978
to
June 1980
0150-0163,
0170-0172,
0636, 0645,
0175-0177,
0180-0183,
0647-0649,
0190-0203,
0210-0218,
0657-0664,
0225-0236,
0140-0143,
0672-0680,
0245-0253,
0255-0261,
0687-0695,
0270-0278,
0285-0288,
0702-0709,
0295-0310,
0315-0335,
0717-0720,
0340-0364,
0370-0403, | G, 1 | IV-13 (Cont Inued)

DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued) | | |

APPENDIX A
 DESCRIPTIONS OF SETS
 (Continued)

| HAOSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------|-------------|-----------|
| 0724-0726,
0410-0416,
0420-0423,
0731-0745,
0445-0458,
0462-0469,
0751-0758,
0120-0122,
0127-0138,
0766-0771,
0477-0480,
0487-0489,
0781-0785,
0497-0507,
0511-0512,
0796-0797,
0517-0512,
0542-0554,
0806-0821,
0562-0565,
0572-0574,
0831-0844,
0582-0585,
0592-0598,
0851-0857,
0607-0620, | G, 1 | IV-13 (Continued)

DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Continued) | | |

APPENDIX A
DESCRIPTIONS OF SETS
(Cont Inued)

| HARSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------|---------------------------------------------------|-----------|
| 0632-0635
0861-0863,
0871-0875,
0881-0921,
0937-0944,
0982-0999 | G, I | IV-13 (Cont Inued)

DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Continued) | | |
| Jan. 1977
to
June 1978

1000-1008,
1010-1013,
1020-1040,
1042-1046,
1048,
1114-1127,
1129, 1112,
1134-1138,
1140-1141,
1400-1402,
1410-1411, | II | IV-14 Prosthetic/Orthotics - rental | 1.0100-1.4130,
1.5000-1.7499,
1.8000-1.8499 | II |

APPENDIX A
DESCRIPTIONS OF SETS
(Continued)

| NABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------|-------------|-----------|
| 1420-1421,
1425-1426,
1428,
1431-1432,
1450-1459,
1475-1476,
1480-1483,
1490-1492,
1517,
1519-1527,
1530,
1533-1535,
1540-1543,
1545-1550,
1552-1555,
1560-1568,
1570-1571,
1575-1584,
1590-1596,
1600-1615,
1617,
1620-1627,
1629-1645,
1647-1661,
1711-1720,
1724-1726,
1728, 1730, | II | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Continued)

IV-14 (Continued) | | |

APPENDIX A
DESCRIPTIONS OF SETS
(Cont Inued)

| HAESP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------|-------------|-----------|
| 1731,
1733-1735,
1737-1739,
1741-1743,
1830,
1745-1751,
1760-1762,
1764-1766,
1768-1769,
1771-1773,
1777,
1800-1809,
1820,
1825-1828,
July 1978
to
June 1980
0150-0163,
0170-0172,
0636, 0645,
0175-0177,
0180-0183,
0647-0649,
0190-0203, | II | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued)

IV-14 (Cont Inued) | | |

APPENDIX A
DESCRIPTIONS OF SETS
(Cont Inued)

| HABSP Codes | TDS Codes | Description of Procedures | HCPCS Codes | TDS Codes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------|-------------|-----------|
| 0210-0218,
0657-0664,
0225-0236,
0140-0143,
0672-0680,
0245-0253,
0255-0261,
0687-0695,
0270-0278,
0295-0288,
0702-0709,
0285-0310,
0315-0335,
0717-0720,
0340-0364,
0370-0403,
0724-0726,
0410-0416,
0420-0423,
0731-0745,
0445-0458,
0462-0469,
0751-0758,
0120-0122,
0127-0138,
0766-0771, | II | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued)

IV-14 (Cont Inued) | | |

APPENDIX A
DESCRIPTIONS OF SETS
(Cont Inued)

| HABSP Codes | TDS Codes | Description of Procedures | HCPCS Codes | TDS Codes |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------|-------------|-----------|
| 0477-0480,
0487-0489,
0781-0785,
0497-0507,
0511-0512,
0796-0797,
0517-0512,
0542-0554,
0806-0821,
0562-0565,
0572-0574,
0831-0844,
0582-0585,
0592-0598,
0851-0854,
0607-0620,
0632-0635,
0861-0863,
0871-0875,
0881-0921,
0937-0944,
0982-0999 | II | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued)

IV-14 (Cont Inued) | | |

APPENDIX A
DESCRIPTIONS OF SETS
(Continued)

| HABSP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|-----------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------|
| Jan. 1977
to
June 1978 | G, 1 | DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Continued) | 1.4220,
1.4220,
1.7500,
1.7510,
1.7520 | G, 1 |
| 2750-2751,
July 1978
to
June 1980 | G, 1 | IV-15 Prosthetic/Orthotics - repairs and replacements | | |
| 0490,
0952-0964,
0972-0977 | G, 1 | | | |
| Jan. 1977
to
June 1978 | G | IV-16 Medical/Surgical supplies | A4649,
A4300,
A4310,
A4340,
A4360,
A4380,
A4390,
A4400,
A4410,
A4420,
A4430,
A4440, | G |
| 2815-2822,
5000-5001,
5004-5006,
9855-9861,
9571, 9939,
9572, 7900,
7904, 7906,
7913-7914, | | | | |

APPENDIX A
DESCRIPTIONS OF SETS
(Cont Inued)

| HAESP Codes | TOS Codes | Description of Procedures | HCPCS Codes | TOS Codes |
|----------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------|
| July 1978
to
June 1980

1105-1106,
7920-7929,
7933-7954,
7957-7958,
7963-7969,
7979 | G | IV-16 (Continued)

DURABLE MEDICAL EQUIPMENT AND
OTHER SERVICES (Cont Inued) | A4460,
A4470,
A4480,
A4490,
A4560,
A0410,
A4572,
A4580,
A4581,
E0400,
E1700-E1729 | G |

TYPE OF SERVICE CODES

=

| | |
|----------------------------------------------------------------------------|---|
| Anesthesia | 4 |
| Concurrent Care | B |
| Consultation | 9 |
| Dental | 7 |
| Laboratory or Pathology | 8 |
| Maternity | 3 |
| Emergency Medical Care | A |
| Medical Care (Non-Accident). | 6 |
| Physicial Therapy/Medicine | D |
| Professional Component | P |
| Psychiatric Care | C |
| Pulmonary Tuberculosis (Inpatient Medical) | N |
| Surgery | 2 |
| Surgical Assistance | 0 |
| X-Ray Diagnostic | 5 |
| X-Ray Therapeutic | E |
| Whole or packed Blood | 1 |
| Physicial Accessories (Purchase- Incident to physician services) | G |
| Ambulance | F |
| Purchase Durable Accessories (Installment payment) | I |
| Rental Durable Accessories | H |
| Second Surgical Opinion | W |
| Third Surgical Opinion | Z |

APPENDIX B

Distribution of Sets Among Patterns

APPENDIX 3

Distribution of Sets to Five Frequency of Services and Average Charge Patterns

| Parallel Charge Lines | | Diverging Charge Lines | Abrupt Change | Partial Period Frequencies | Erratic Pattern |
|-----------------------|--------|------------------------|---------------|----------------------------|-----------------|
| I-1 | I-66 | I-37 | I-11 | I-64 | I-9 |
| I-2 | I-68 | I-38 | I-26 | I-70 | I-24 |
| I-3 | I-69 | I-39 | I-36 | IV-4 | I-27 |
| I-4 | I-71 | I-40 | I-63 | | I-31 |
| I-5 | I-72 | I-41 | I-88 | | I-33 |
| I-6 | I-73 | I-43 | | | I-34 |
| I-7 | I-75 | I-47 | | | I-44 |
| I-8 | I-76 | I-53 | | | I-57 |
| I-10 | I-77 | I-54 | | | I-65 |
| I-12 | I-78 | I-55 | | | I-67 |
| I-13 | I-79 | I-56 | | | I-74 |
| I-14 | I-80 | I-59 | | | I-85 |
| I-15 | I-81 | I-61 | | | I-89 |
| I-16 | I-82 | I-62 | | | II-6 |
| I-17 | I-83 | I-86 | | | II-11 |
| I-18 | I-84 | | | | II-13 |
| I-19 | I-87 | II-13 | | | II-16 |
| I-20 | II-1 | III-1 | | | III-11 |
| I-21 | II-2 | III-2 | | | IV-3 |
| I-22 | II-3 | III-3 | | | IV-8 |
| I-23 | II-4 | III-4 | | | IV-9 |
| I-25 | II-5 | III-5 | | | IV-12 |
| I-28 | II-7 | III-6 | | | |
| I-29 | II-8 | III-7 | | | |
| I-30 | II-9 | III-8 | | | |
| I-32 | II-10 | III-9 | | | |
| I-35 | II-12 | III-10 | | | |
| I-42 | II-14 | III-12 | | | |
| I-45 | III-13 | III-14 | | | |
| I-46 | III-15 | III-16 | | | |
| I-48 | III-17 | IV-5 | | | |
| I-49 | IV-1 | IV-7 | | | |
| I-50 | IV-2 | IV-10 | | | |
| I-51 | IV-6 | IV-11 | | | |
| I-52 | IV-13 | IV-15 | | | |
| I-58 | IV-16 | | | | |
| I-60 | | | | | |

The following sets display "unusual month" fluctuations: I-15, I-32, I-35, I-43, I-50, I-51, I-52, I-66, I-67, I-75, I-81, I-82, II-9, IV-1, IV-7.

There were no charges to Set I-90 and Set IV-14 during the 34-month study period.

APPENDIX C

Numerical Tabulations of Data in
Figures in Text of Report

Table 1

Frequency of Service
January 1977 - June 1980 Assigned and Unassigned Claims;
Matched and Non Matched Providers

| Month | Assigned Claims
Matched Providers | Unassigned Claims
Matched Providers | Assigned Claims
Nonmatched Providers | Unassigned Claims
Nonmatched Providers |
|-----------|--------------------------------------|----------------------------------------|-----------------------------------------|-------------------------------------------|
| Jan. 1977 | 137206 | 95276 | 28212 | 25019 |
| Feb. | 158798 | 108473 | 31957 | 27074 |
| Mar. | 192549 | 106673 | 30453 | 24337 |
| Apr. | 177351 | 99770 | 29928 | 21571 |
| May | 151736 | 97193 | 22846 | 21667 |
| Jun. | 160605 | 96462 | 22774 | 17604 |
| Jul. | 163622 | 34689 | 26890 | 16411 |
| Aug. | 178123 | 102731 | 23862 | 13677 |
| Sep. | 159490 | 97189 | 20710 | 13432 |
| Oct. | 271488 | 97048 | 34109 | 15788 |
| Nov. | 209592 | 104759 | 21665 | 16372 |
| Dec. | 230302 | 127970 | 21977 | 18503 |
| Jan. 1978 | 191001 | 137001 | 17792 | 17886 |
| Feb. | 236828 | 117946 | 17396 | 15688 |
| Mar. | 294004 | 129463 | 19782 | 17810 |
| Apr. | 205211 | 108198 | 17268 | 12698 |
| May | 243660 | 110506 | 19469 | 12194 |
| Jun. | 223762 | 120096 | 19372 | 13686 |
| Jul. | 189987 | 95242 | 14052 | 10998 |
| Aug. | 284402 | 108587 | 15145 | 13819 |
| Sep. | 237884 | 97640 | 10614 | 10717 |
| Oct. | 294013 | 122863 | 15047 | 12014 |
| Nov. | 193272 | 103882 | 9926 | 9617 |
| Dec. | 250814 | 129335 | 10075 | 11060 |
| Jan. 1979 | 250729 | 167733 | 12105 | 18369 |
| Feb. | 187768 | 134213 | 10088 | 8454 |
| Mar. | 225761 | 145127 | 10722 | 9718 |
| Apr. | 184114 | 124942 | 8929 | 8364 |
| May | 233968 | 120274 | 10201 | 10109 |
| Jun. | 318236 | 130610 | 3767 | 9380 |
| Jul. | 258658 | 122029 | 7722 | 7018 |
| Aug. | 270590 | 142767 | 9888 | 8364 |
| Sep. | 178486 | 128855 | 8805 | 7966 |
| Oct. | 243965 | 156479 | 13068 | 11669 |
| Nov. | 217793 | 138904 | 11895 | 10749 |
| Dec. | 189646 | 144764 | 11378 | 11595 |
| Jan. 1980 | 244810 | 189621 | 16584 | 14298 |
| Feb. | 235512 | 149843 | 15639 | 13126 |
| Mar. | 237173 | 134220 | 17760 | 14545 |
| Apr. | 238561 | 162453 | 21993 | 17649 |
| May | 197095 | 143537 | 20353 | 17466 |
| Jun. | 226780 | 135054 | 18793 | 13195 |
| Jul. | 177706 | 135776 | 18570 | 17895 |
| Aug. | 179248 | 143125 | 23243 | 20339 |
| Sep. | 220237 | 162438 | 26705 | 22710 |
| Oct. | 316934 | 168686 | 31673 | 27408 |
| Nov. | 193064 | 130217 | 24879 | 23070 |
| Dec. | 237456 | 164278 | 29250 | 27027 |
| Jan. 1981 | 256509 | 163432 | 28459 | 26449 |
| Feb. | 278219 | 172063 | 37345 | 30794 |
| Mar. | 248069 | 179913 | 40588 | 35923 |
| Apr. | 252322 | 137543 | 39669 | 32397 |
| May | 310906 | 142167 | 38567 | 29688 |
| Jun. | 230920 | 166491 | 45778 | 35749 |

Table 2

Total For All Sets - Frequency of Service, Allowed Charge,
Total Allowed Charge Adjusted for Seasonal Effect
and Economic Effect, and Economic Index

| Date | Frequency
of Service | Allowed
Charge
(Dollars) | Allowed Charge Adjusted
for Economic and
Seasonal Effect (Dollars) | Economic
Index |
|-----------|-------------------------|--------------------------------|--------------------------------------------------------------------------|-------------------|
| Jan. 1977 | 295713 | 3180952 | 2875763 | 1.1980 |
| Feb. | 326302 | 3597686 | 3112521 | 1.1980 |
| Mar. | 354017 | 3783143 | 2911971 | 1.1980 |
| Apr. | 327620 | 3875445 | 3243248 | 1.1980 |
| May | 293442 | 3753113 | 3267391 | 1.1980 |
| Jun. | 297445 | 3749768 | 3035454 | 1.1980 |
| Jul. | 291612 | 3600465 | 3145173 | 1.2725 |
| Aug. | 323413 | 4039069 | 3114457 | 1.2725 |
| Sep. | 295871 | 3767496 | 3039578 | 1.2725 |
| Oct. | 418433 | 3979299 | 2748981 | 1.2725 |
| Nov. | 352588 | 4020814 | 3355374 | 1.2725 |
| Dec. | 418752 | 4256230 | 3286463 | 1.2725 |
| Jan. 1978 | 363680 | 4113676 | 3472040 | 1.2725 |
| Feb. | 387858 | 4104730 | 3315374 | 1.2725 |
| Mar. | 461060 | 5002451 | 3594685 | 1.2725 |
| Apr. | 343375 | 4051393 | 3165349 | 1.2725 |
| May | 385829 | 4467253 | 3630842 | 1.2725 |
| Jun. | 376916 | 4565905 | 3450682 | 1.2725 |
| Jul. | 310282 | 3927430 | 3252148 | 1.3424 |
| Aug. | 421953 | 4413080 | 3227259 | 1.3424 |
| Sep. | 356855 | 3956234 | 3025648 | 1.3424 |
| Oct. | 443937 | 5213840 | 3414277 | 1.3424 |
| Nov. | 316698 | 4089195 | 3234749 | 1.3424 |
| Dec. | 401284 | 4732661 | 3464056 | 1.3424 |
| Jan. 1979 | 448936 | 5461819 | 4369863 | 1.3424 |
| Feb. | 340523 | 4468100 | 3420949 | 1.3424 |
| Mar. | 391328 | 5605882 | 3818544 | 1.3424 |
| Apr. | 326349 | 5048346 | 3738886 | 1.3424 |
| May | 374552 | 4905117 | 3779132 | 1.3424 |
| Jun. | 466993 | 5546093 | 3973205 | 1.3424 |
| Jul. | 395427 | 5198180 | 4050069 | 1.4267 |
| Aug. | 431609 | 6061216 | 4168736 | 1.4267 |
| Sep. | 324112 | 5037284 | 3624784 | 1.4267 |
| Oct. | 425181 | 6392563 | 3938874 | 1.4267 |
| Nov. | 379341 | 5445462 | 4053095 | 1.4267 |
| Dec. | 357383 | 5023408 | 3459611 | 1.4267 |
| Jan. 1980 | 465313 | 6755366 | 5085442 | 1.4267 |
| Feb. | 414120 | 5931974 | 4273387 | 1.4267 |
| Mar. | 403698 | 6022063 | 3859654 | 1.4267 |
| Apr. | 440658 | 7120993 | 4962300 | 1.4267 |
| May | 378451 | 6503100 | 4714248 | 1.4267 |
| Jun. | 395422 | 5770223 | 3889518 | 1.4267 |
| Jul. | 349947 | 6094432 | 4430961 | 1.5289 |
| Aug. | 365955 | 6805160 | 4367536 | 1.5289 |
| Sep. | 432090 | 7616762 | 5114376 | 1.5289 |
| Oct. | 544706 | 8211839 | 4722112 | 1.5289 |
| Nov. | 371230 | 6145628 | 4258466 | 1.5289 |
| Dec. | 458011 | 7279565 | 4678297 | 1.5289 |
| Jan. 1981 | 474849 | 6722374 | 4722327 | 1.5289 |
| Feb. | 518421 | 8184409 | 5501915 | 1.5289 |
| Mar. | 504498 | 8487644 | 5076251 | 1.5289 |
| Apr. | 481931 | 8067449 | 5246047 | 1.5289 |
| May | 522328 | 7102401 | 4804529 | 1.5289 |
| Jun. | 528938 | 7992242 | 4964291 | 1.5289 |

Table 3

Comparison of Average Charge in Terms of Allowed and Billed,
January 1977 - June 1981 Set I-7: Medicine - Services:
Respiratory System, Assigned and Unassigned Claims

| Date | Billed Average
Charge Assigned=
Claims | Allowed Average
Charge Assigned
Claims | Billed Average
Charge Unassigned
Claims | Allowed Average
Charge Unassigned
Claims |
|-----------|----------------------------------------------|----------------------------------------------|-----------------------------------------------|------------------------------------------------|
| Jan. 1977 | 152.61 | 125.57 | 92.99 | 72.83 |
| Feb. | 155.18 | 120.59 | 175.66 | 138.25 |
| Mar. | 152.64 | 123.26 | 194.97 | 154.41 |
| Apr. | 183.76 | 142.72 | 123.45 | 99.32 |
| May | 173.16 | 139.46 | 172.91 | 130.45 |
| Jun. | 190.30 | 141.04 | 132.60 | 109.41 |
| Jul. | 191.03 | 149.76 | 206.88 | 156.86 |
| Aug. | 148.94 | 121.39 | 145.74 | 115.96 |
| Sep. | 160.48 | 130.04 | 169.25 | 131.33 |
| Oct. | 176.13 | 135.70 | 108.54 | 81.63 |
| Nov. | 179.44 | 143.17 | 164.51 | 123.88 |
| Dec. | 171.91 | 139.22 | 154.36 | 114.44 |
| Jan. 1978 | 140.02 | 103.59 | 153.66 | 121.03 |
| Feb. | 198.56 | 145.47 | 137.81 | 107.18 |
| Mar. | 163.33 | 122.97 | 143.28 | 112.29 |
| Apr. | 183.84 | 140.84 | 143.30 | 105.11 |
| May | 169.83 | 129.68 | 202.53 | 154.13 |
| Jun. | 208.75 | 160.36 | 161.65 | 116.00 |
| Jul. | 196.62 | 163.40 | 129.67 | 103.05 |
| Aug. | 180.60 | 145.74 | 190.32 | 154.69 |
| Sep. | 213.76 | 166.02 | 163.54 | 126.22 |
| Oct. | 215.75 | 169.71 | 216.24 | 166.29 |
| Nov. | 189.53 | 156.65 | 196.53 | 161.95 |
| Dec. | 273.94 | 205.09 | 212.43 | 161.38 |
| Jan. 1979 | 198.43 | 161.25 | 158.29 | 123.71 |
| Feb. | 226.29 | 176.94 | 131.41 | 106.23 |
| Mar. | 199.57 | 155.67 | 170.88 | 132.84 |
| Apr. | 196.74 | 157.18 | 179.39 | 138.90 |
| May | 178.92 | 131.05 | 175.94 | 141.31 |
| Jun. | 223.17 | 169.93 | 148.19 | 112.34 |
| Jul. | 244.93 | 189.53 | 164.11 | 122.49 |
| Aug. | 217.67 | 172.26 | 224.68 | 170.82 |
| Sep. | 201.33 | 156.37 | 263.37 | 205.16 |
| Oct. | 223.97 | 176.05 | 203.61 | 161.04 |
| Nov. | 253.14 | 188.99 | 237.86 | 191.97 |
| Dec. | 235.98 | 187.52 | 179.29 | 137.02 |
| Jan. 1980 | 232.74 | 189.40 | 182.17 | 144.98 |
| Feb. | 239.12 | 181.52 | 201.98 | 154.42 |
| Mar. | 218.84 | 167.78 | 207.46 | 170.30 |
| Apr. | 194.34 | 145.43 | 200.22 | 143.13 |
| May | 239.68 | 175.53 | 205.56 | 152.54 |
| Jun. | 242.32 | 185.08 | 280.65 | 215.21 |
| Jul. | 258.34 | 201.39 | 163.00 | 139.03 |
| Aug. | 208.91 | 165.60 | 174.50 | 138.38 |
| Sep. | 258.02 | 199.49 | 250.31 | 196.93 |
| Oct. | 223.37 | 172.22 | 174.43 | 143.15 |
| Nov. | 238.39 | 184.38 | 200.75 | 163.42 |
| Dec. | 265.72 | 208.45 | 208.29 | 164.32 |
| Jan. 1981 | 244.98 | 188.35 | 295.23 | 223.01 |
| Feb. | 233.06 | 169.77 | 191.31 | 147.95 |
| Mar. | 284.23 | 214.35 | 264.30 | 199.93 |
| Apr. | 246.61 | 187.41 | 216.46 | 175.13 |
| May | 261.14 | 193.87 | 289.38 | 222.71 |
| Jun. | 252.65 | 180.54 | 259.32 | 197.89 |

Table 4

Comparison of Average Charge in Terms of Allowed and Billed,
January 1977 - June 1981, Set I-53: Medicine - Services:
Office Visits, Assigned and Unassigned Claims

| Date | Billed Average =
Charge Assigned
Claims | Allowed Average
Charge Assigned
Claims | Billed Average
Charge Unassigned
Claims | Allowed Average
Charge Unassigned
Claims |
|-----------|-----------------------------------------------|----------------------------------------------|-----------------------------------------------|------------------------------------------------|
| Jan. 1977 | 9.37 | 7.24 | 10.43 | 8.30 |
| Feb. | 10.01 | 7.42 | 10.33 | 8.35 |
| Mar. | 10.19 | 7.59 | 10.93 | 8.53 |
| Apr. | 10.23 | 7.56 | 11.42 | 8.66 |
| May | 10.25 | 7.54 | 11.96 | 9.06 |
| Jun. | 10.32 | 7.54 | 11.70 | 8.79 |
| Jul. | 9.97 | 7.70 | 11.68 | 9.01 |
| Aug. | 10.66 | 8.42 | 12.19 | 9.62 |
| Sep. | 10.65 | 8.27 | 12.19 | 9.52 |
| Oct. | 10.66 | 8.29 | 12.20 | 9.62 |
| Nov. | 10.68 | 8.25 | 12.13 | 9.52 |
| Dec. | 10.59 | 8.19 | 11.88 | 9.30 |
| Jan. 1978 | 10.48 | 8.01 | 11.53 | 9.00 |
| Feb. | 10.96 | 8.29 | 11.82 | 9.11 |
| Mar. | 11.29 | 8.40 | 12.42 | 9.43 |
| Apr. | 11.27 | 8.30 | 12.83 | 9.49 |
| May | 11.04 | 8.25 | 12.83 | 9.49 |
| Jun. | 11.60 | 8.21 | 12.87 | 9.48 |
| Jul. | 11.87 | 8.76 | 12.91 | 9.94 |
| Aug. | 11.99 | 9.11 | 13.09 | 10.13 |
| Sep. | 11.79 | 8.98 | 12.99 | 10.05 |
| Oct. | 12.03 | 9.01 | 13.21 | 10.15 |
| Nov. | 12.02 | 8.96 | 13.25 | 10.12 |
| Dec. | 12.20 | 9.02 | 13.08 | 9.96 |
| Jan. 1979 | 12.20 | 8.92 | 12.70 | 9.66 |
| Feb. | 12.82 | 9.16 | 13.40 | 10.02 |
| Mar. | 12.63 | 9.12 | 13.66 | 10.03 |
| Apr. | 12.92 | 9.20 | 14.13 | 10.23 |
| May | 12.74 | 9.10 | 14.34 | 10.29 |
| Jun. | 12.86 | 9.12 | 14.01 | 10.10 |
| Jul. | 13.44 | 9.74 | 14.13 | 10.63 |
| Aug. | 13.30 | 9.92 | 14.48 | 10.37 |
| Sep. | 13.29 | 9.89 | 14.53 | 10.32 |
| Oct. | 13.47 | 9.84 | 14.34 | 10.93 |
| Nov. | 13.48 | 9.84 | 14.70 | 10.30 |
| Dec. | 13.64 | 9.85 | 14.42 | 10.61 |
| Jan. 1980 | 13.35 | 9.65 | 14.02 | 10.27 |
| Feb. | 14.05 | 9.30 | 14.93 | 10.65 |
| Mar. | 14.38 | 9.38 | 15.43 | 10.33 |
| Apr. | 14.47 | 9.92 | 15.61 | 10.33 |
| May | 14.43 | 9.90 | 15.76 | 10.82 |
| Jun. | 14.33 | 9.90 | 15.38 | 10.38 |
| Jul. | 14.38 | 10.36 | 15.37 | 11.46 |
| Aug. | 14.65 | 10.77 | 15.98 | 11.69 |
| Sep. | 14.41 | 10.55 | 15.73 | 11.49 |
| Oct. | 14.68 | 10.65 | 16.00 | 11.67 |
| Nov. | 14.77 | 10.68 | 15.39 | 11.54 |
| Dec. | 14.70 | 10.54 | 15.58 | 11.32 |
| Jan. 1981 | 14.77 | 10.55 | 15.27 | 11.03 |
| Feb. | 15.25 | 10.68 | 15.30 | 11.29 |
| Mar. | 15.61 | 10.79 | 16.64 | 11.62 |
| Apr. | 15.70 | 10.35 | 17.04 | 11.79 |
| May | 15.57 | 10.71 | 16.95 | 11.65 |
| Jun. | 15.45 | 10.56 | 16.98 | 11.58 |

Table 5

Comparison of Average Charge in Terms of Allowed and Billed,
January 1977 - June 1981, All Services Combined,
Assigned and Unassigned Claims

| Date | Billed Average
Charge Assigned
Claims | Allowed Average
Charge Assigned
Claims | Billed Average
Charge Unassigned
Claims | Allowed Average
Charge Unassigned
Claims |
|-----------|---------------------------------------------|----------------------------------------------|-----------------------------------------------|------------------------------------------------|
| Jan. 1977 | 13.38 | 11.06 | 12.33 | 10.61 |
| Feb. | 12.98 | 10.59 | 13.53 | 11.02 |
| Mar. | 11.99 | 9.74 | 14.29 | 11.50 |
| Apr. | 13.39 | 11.22 | 16.20 | 12.13 |
| May | 15.61 | 12.40 | 15.84 | 12.47 |
| Jun. | 15.23 | 12.10 | 16.29 | 12.80 |
| Jul. | 14.53 | 11.73 | 16.04 | 12.35 |
| Aug. | 14.30 | 11.72 | 15.93 | 13.03 |
| Sep. | 14.75 | 11.99 | 16.34 | 13.60 |
| Oct. | 9.09 | 7.56 | 16.38 | 13.78 |
| Nov. | 11.85 | 9.75 | 16.37 | 13.60 |
| Dec. | 10.44 | 8.66 | 14.84 | 12.00 |
| Jan. 1978 | 13.57 | 11.02 | 13.60 | 10.90 |
| Feb. | 11.43 | 9.29 | 15.15 | 12.05 |
| Mar. | 11.38 | 9.22 | 16.86 | 13.26 |
| Apr. | 13.51 | 10.77 | 16.68 | 12.98 |
| May | 12.87 | 10.25 | 17.40 | 13.44 |
| Jun. | 14.65 | 11.52 | 16.51 | 12.71 |
| Jul. | 14.50 | 11.38 | 17.08 | 13.75 |
| Aug. | 10.56 | 8.78 | 17.40 | 14.09 |
| Sep. | 11.67 | 9.70 | 16.84 | 13.59 |
| Oct. | 12.58 | 10.26 | 13.30 | 14.53 |
| Nov. | 14.63 | 11.94 | 18.01 | 14.32 |
| Dec. | 13.14 | 10.70 | 16.37 | 13.35 |
| Jan. 1979 | 14.76 | 12.01 | 15.84 | 12.48 |
| Feb. | 16.55 | 13.28 | 16.32 | 12.79 |
| Mar. | 17.72 | 14.21 | 18.63 | 14.34 |
| Apr. | 19.58 | 15.53 | 19.74 | 15.10 |
| May | 15.20 | 12.12 | 19.52 | 14.78 |
| Jun. | 13.24 | 10.56 | 19.32 | 14.73 |
| Jul. | 14.85 | 12.14 | 18.54 | 14.55 |
| Aug. | 15.84 | 13.10 | 19.14 | 15.20 |
| Sep. | 19.24 | 15.88 | 18.53 | 14.63 |
| Oct. | 17.70 | 14.61 | 19.34 | 15.19 |
| Nov. | 17.09 | 13.96 | 18.53 | 14.47 |
| Dec. | 17.35 | 14.38 | 16.71 | 13.04 |
| Jan. 1980 | 18.81 | 15.44 | 16.69 | 12.39 |
| Feb. | 17.71 | 14.13 | 18.38 | 13.96 |
| Mar. | 18.35 | 14.61 | 19.66 | 14.30 |
| Apr. | 21.07 | 16.60 | 20.09 | 14.94 |
| May | 24.01 | 18.57 | 20.31 | 14.84 |
| Jun. | 18.24 | 14.02 | 19.67 | 14.23 |
| Jul. | 23.14 | 13.40 | 19.98 | 15.22 |
| Aug. | 25.35 | 20.56 | 19.98 | 15.37 |
| Sep. | 23.39 | 18.62 | 19.25 | 14.74 |
| Oct. | 17.44 | 14.04 | 13.85 | 14.44 |
| Nov. | 20.22 | 16.13 | 20.03 | 15.35 |
| Dec. | 19.34 | 15.76 | 18.11 | 13.78 |
| Jan. 1981 | 17.01 | 13.49 | 16.70 | 12.60 |
| Feb. | 19.51 | 15.27 | 13.35 | 14.02 |
| Mar. | 21.68 | 16.70 | 19.17 | 14.18 |
| Apr. | 20.61 | 15.38 | 20.55 | 15.16 |
| May | 14.73 | 11.38 | 19.50 | 14.13 |
| Jun. | 13.06 | 13.77 | 13.36 | 13.65 |

Table 6

Average Charge for Services Per Month in Terms of Allowed and Billed
Charges, January 1977 - June 1981, Set T-38: Diagnostic
Radiology - Chest (Professional and Technical)

| = | | |
|-----------|--------------------------|---------------------------|
| Date | Billed Average
Charge | Allowed Average
Charge |
| Jan. 1977 | 14.51 | 13.04 |
| Feb. | 14.48 | 13.20 |
| Mar. | 14.26 | 12.73 |
| Apr. | 13.94 | 12.57 |
| May | 13.87 | 12.58 |
| Jun. | 13.89 | 12.53 |
| Jul. | 13.34 | 12.07 |
| Aug. | 13.90 | 12.49 |
| Sep. | 14.28 | 13.01 |
| Oct. | 14.34 | 12.95 |
| Nov. | 14.44 | 13.02 |
| Dec. | 14.22 | 12.62 |
| Jan. 1978 | 14.35 | 12.78 |
| Feb. | 13.98 | 12.63 |
| Mar. | 14.46 | 12.90 |
| Apr. | 14.95 | 13.37 |
| May | 15.41 | 13.57 |
| Jun. | 15.79 | 13.58 |
| Jul. | 16.66 | 13.57 |
| Aug. | 15.30 | 13.82 |
| Sep. | 14.64 | 13.61 |
| Oct. | 16.42 | 14.20 |
| Nov. | 16.73 | 14.28 |
| Dec. | 17.45 | 14.46 |
| Jan. 1979 | 17.18 | 14.07 |
| Feb. | 16.88 | 14.55 |
| Mar. | 17.87 | 14.39 |
| Apr. | 16.97 | 14.63 |
| May | 17.40 | 14.53 |
| Jun. | 18.70 | 14.31 |
| Jul. | 17.96 | 14.77 |
| Aug. | 18.64 | 15.36 |
| Sep. | 18.75 | 15.44 |
| Oct. | 18.82 | 15.43 |
| Nov. | 18.88 | 15.57 |
| Dec. | 18.88 | 15.06 |
| Jan. 1980 | 19.42 | 15.30 |
| Feb. | 20.33 | 15.96 |
| Mar. | 21.42 | 17.22 |
| Apr. | 21.12 | 15.73 |
| May | 22.04 | 15.97 |
| Jun. | 21.91 | 15.39 |
| Jul. | 22.16 | 17.01 |
| Aug. | 22.39 | 17.32 |
| Sep. | 22.74 | 18.08 |
| Oct. | 22.91 | 18.22 |
| Nov. | 23.14 | 18.24 |
| Dec. | 23.13 | 18.25 |
| Jan. 1981 | 23.04 | 18.12 |
| Feb. | 23.32 | 18.19 |
| Mar. | 24.39 | 18.63 |
| Apr. | 23.98 | 18.37 |
| May | 23.15 | 18.08 |
| Jun. | 24.49 | 18.37 |

Table 7

Frequency of Services Per Month,
January 1977 - June 1981,
Sec I-32: Ocular Adnexa - Eyelids

| <u>Date</u> | <u>Frequency of Service</u> |
|-------------|-----------------------------|
| Jan. 1977 | 9 |
| Feb. | 8 |
| Mar. | 9 |
| Apr. | 14 |
| May | 18 |
| Jun. | 21 |
| Jul. | 17 |
| Aug. | 20 |
| Sep. | 18 |
| Oct. | 14 |
| Nov. | 16 |
| Dec. | 23 |
| Jan. 1978 | 72 |
| Feb. | 13 |
| Mar. | 14 |
| Apr. | 14 |
| May | 16 |
| Jun. | 19 |
| Jul. | 9 |
| Aug. | 13 |
| Sep. | 14 |
| Oct. | 24 |
| Nov. | 12 |
| Dec. | 26 |
| Jan. 1979 | 16 |
| Feb. | 18 |
| Mar. | 22 |
| Apr. | 23 |
| May | 61 |
| Jun. | 43 |
| Jul. | 22 |
| Aug. | 31 |
| Sep. | 22 |
| Oct. | 24 |
| Nov. | 25 |
| Dec. | 21 |
| Jan. 1980 | 23 |
| Feb. | 20 |
| Mar. | 13 |
| Apr. | 33 |
| May | 23 |
| Jun. | 19 |
| Jul. | 21 |
| Aug. | 15 |
| Sep. | 24 |
| Oct. | 20 |
| Nov. | 17 |
| Dec. | 27 |
| Jan. 1981 | 54 |
| Feb. | 27 |
| Mar. | 22 |
| Apr. | 21 |
| May | 22 |
| Jun. | 14 |

Table 3

Average Charge for Services Per Month in Terms of Allowed
and Billed Charges, January 1977 - June 1981, Set I-50:
Laboratory and Pathology - Anatomic Pathology -
Cytopathology and Cytogenetic Studies (Professional and Technical)

=

| Date | Billed Average
Charge | Allowed Average
Charge |
|-----------|--------------------------|---------------------------|
| Jan. 1977 | 6.41 | 5.18 |
| Feb. | 6.35 | 5.57 |
| Mar. | 6.13 | 5.55 |
| Apr. | 6.72 | 5.84 |
| May | 6.45 | 5.60 |
| Jun. | 8.31 | 6.24 |
| Jul. | 7.07 | 5.73 |
| Aug. | 6.75 | 5.68 |
| Sep. | 6.37 | 5.63 |
| Oct. | 6.93 | 5.70 |
| Nov. | 7.06 | 5.75 |
| Dec. | 6.77 | 5.90 |
| Jan. 1978 | 7.10 | 5.71 |
| Feb. | 5.90 | 5.03 |
| Mar. | 7.63 | 6.01 |
| Apr. | 6.29 | 5.21 |
| May | 9.88 | 7.36 |
| Jun. | 7.03 | 5.33 |
| Jul. | 8.34 | 5.89 |
| Aug. | 11.72 | 9.09 |
| Sep. | 9.93 | 7.72 |
| Oct. | 10.11 | 7.10 |
| Nov. | 10.06 | 7.23 |
| Dec. | 12.74 | 9.39 |
| Jan. 1979 | 8.60 | 6.48 |
| Feb. | 7.11 | 3.30 |
| Mar. | 6.68 | 3.34 |
| Apr. | 10.58 | 6.17 |
| May | 9.18 | 5.12 |
| Jun. | 8.69 | 4.97 |
| Jul. | 8.10 | 5.36 |
| Aug. | 11.99 | 9.82 |
| Sep. | 12.52 | 10.15 |
| Oct. | 8.31 | 6.06 |
| Nov. | 11.86 | 3.50 |
| Dec. | 7.59 | 5.25 |
| Jan. 1980 | 7.38 | 5.05 |
| Feb. | 9.82 | 6.37 |
| Mar. | 8.31 | 6.57 |
| Apr. | 6.98 | 5.01 |
| May | 8.37 | 4.78 |
| Jun. | 9.52 | 6.50 |
| Jul. | 11.91 | 3.49 |
| Aug. | 14.63 | 12.40 |
| Sep. | 31.21 | 24.55 |
| Oct. | 27.57 | 21.32 |
| Nov. | 17.04 | 12.17 |
| Dec. | 14.55 | 11.35 |
| Jan. 1981 | 9.61 | 6.91 |
| Feb. | 8.12 | 5.56 |
| Mar. | 11.83 | 9.64 |
| Apr. | 10.66 | 7.33 |
| May | 13.40 | 14.04 |
| Jun. | 10.14 | 7.41 |

Table 9

Frequency of Services Per Month,
January 1977 - June 1981,
Sec 1-64: Preventive Health Care

| <u>Date</u> | <u>Frequency of Service</u> |
|-------------|-----------------------------|
| Jan. 1977 | — |
| Feb. | — |
| Mar. | — |
| Apr. | — |
| May | — |
| Jun. | — |
| Jul. | — |
| Aug. | — |
| Sep. | — |
| Oct. | — |
| Nov. | 4 |
| Dec. | 3 |
| Jan. 1978 | 4 |
| Feb. | 6 |
| Mar. | 5 |
| Apr. | 15 |
| May | 9 |
| Jun. | 4 |
| Jul. | 5 |
| Aug. | 3 |
| Sep. | 8 |
| Oct. | 4 |
| Nov. | 6 |
| Dec. | 5 |
| Jan. 1979 | 2 |
| Feb. | 4 |
| Mar. | 2 |
| Apr. | 2 |
| May | 13 |
| Jun. | 11 |
| Jul. | 10 |
| Aug. | 11 |
| Sep. | 10 |
| Oct. | 6 |
| Nov. | 2 |
| Dec. | 5 |
| Jan. 1980 | 4 |
| Feb. | 1 |
| Mar. | 3 |
| Apr. | 3 |
| May | 5 |
| Jun. | 1 |
| Jul. | — |
| Aug. | — |
| Sep. | — |
| Oct. | — |
| Nov. | — |
| Dec. | — |
| Jan. 1981 | — |
| Feb. | — |
| Mar. | — |
| Apr. | — |
| May | — |
| Jun. | — |

Table 10

Average Charge for Services Per Month in Terms of Allowed
and Billed Charges, January 1977 - June 1981, Set I-24:
Maternity Care and Delivery (Including
Removal of Hydatidiform Mole)

| Date | Billed Average
Charge | Allowed Average
Charge |
|-----------|--------------------------|---------------------------|
| Jan. 1977 | — | — |
| Feb. | — | — |
| Mar. | — | — |
| Apr. | — | — |
| May | — | — |
| Jun. | 312.50 | 200.00 |
| Jul. | — | — |
| Aug. | 380.00 | 337.50 |
| Sep. | — | — |
| Oct. | 250.00 | 225.00 |
| Nov. | — | — |
| Dec. | — | — |
| Jan. 1978 | — | — |
| Feb. | — | — |
| Mar. | 400.00 | 350.00 |
| Apr. | — | — |
| May | 195.00 | 195.00 |
| Jun. | — | — |
| Jul. | — | — |
| Aug. | — | — |
| Sep. | — | — |
| Oct. | 250.00 | 250.00 |
| Nov. | 262.50 | 255.00 |
| Dec. | 260.00 | 243.50 |
| Jan. 1979 | 300.00 | 300.00 |
| Feb. | 375.00 | 325.00 |
| Mar. | 425.00 | 325.00 |
| Apr. | 387.50 | 350.00 |
| May | 192.50 | 192.50 |
| Jun. | 52.30 | 45.00 |
| Jul. | 194.00 | 180.50 |
| Aug. | 355.14 | 293.19 |
| Sep. | 450.00 | 450.00 |
| Oct. | 14.00 | 12.00 |
| Nov. | 375.00 | 325.00 |
| Dec. | 129.66 | 129.00 |
| Jan. 1980 | 210.00 | 207.66 |
| Feb. | 475.00 | 450.00 |
| Mar. | 500.00 | 400.00 |
| Apr. | 143.46 | 127.36 |
| May | — | — |
| Jun. | 425.00 | 500.00 |
| Jul. | 362.50 | 312.50 |
| Aug. | 650.00 | 600.00 |
| Sep. | 750.00 | 600.00 |
| Oct. | 350.00 | 280.00 |
| Nov. | 11.00 | 9.00 |
| Dec. | 262.50 | 147.00 |
| Jan. 1981 | — | — |
| Feb. | — | — |
| Mar. | — | — |
| Apr. | 130.00 | 63.00 |
| May | 650.00 | 575.00 |
| Jun. | 475.00 | 432.00 |

Table 11

Frequency of Services Per Month,
January 1977 - June 1981,
Ser I-67: Dialysis - Hemodialysis

| Date | Frequency of Service |
|-----------|----------------------|
| Jan. 1977 | 13 |
| Feb. | 6 |
| Mar. | 6 |
| Apr. | 36 |
| May | 7 |
| Jun. | 19 |
| Jul. | 53 |
| Aug. | 13 |
| Sep. | 22 |
| Oct. | 13 |
| Nov. | 3 |
| Dec. | 11 |
| Jan. 1978 | 5 |
| Feb. | 12 |
| Mar. | 56 |
| Apr. | 11 |
| May | 47 |
| Jun. | 30 |
| Jul. | 19 |
| Aug. | 23 |
| Sep. | 19 |
| Oct. | 10 |
| Nov. | 36 |
| Dec. | 32 |
| Jan. 1979 | 34 |
| Feb. | 23 |
| Mar. | 106 |
| Apr. | 21 |
| May | 22 |
| Jun. | 22 |
| Jul. | 41 |
| Aug. | 112 |
| Sep. | 36 |
| Oct. | 21 |
| Nov. | 42 |
| Dec. | 43 |
| Jan. 1980 | 116 |
| Feb. | 47 |
| Mar. | 49 |
| Apr. | 74 |
| May | 96 |
| Jun. | 48 |
| Jul. | 46 |
| Aug. | 67 |
| Sep. | 30 |
| Oct. | 315 |
| Nov. | 23 |
| Dec. | 30 |
| Jan. 1981 | 41 |
| Feb. | 41 |
| Mar. | 103 |
| Apr. | 42 |
| May | 40 |
| Jun. | 40 |

1900
1901
1902
1903
1904



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